Melody and Meaning:

The Semiotics of Ancient Greek Music in the Late Classical and Early Hellenistic Eras

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List of Abbreviations

Abbreviations of Greek authors and texts are as in Liddell, H.G. and R. Scott (edd.) (1940) *A Greek English Lexicon*. Oxford: Oxford University Press, 9th ed. (= *LSJ*).

Latin authors are abbreviated as in Glare, P.G.W. (ed.) (2012) *The Oxford Latin Dictionary.* Oxford: Oxford University Press, 2nd ed. (= *OLD*).

Other works of modern scholarship are as in *L'Année Philologique*. Société Internationale de Bibliographie Classique, last update at time of writing 25/10/2018 (= *APh*), with these additions:

DAGM = Pöhlmann, E. and M.L. West (2001) *Documents of Ancient Greek Music*. Oxford: Oxford University Press.

FDS = Hülser, K. (1987) *Die Fragmente zur Dialektik der Stoiker*. Stuttgart and Bad Cannstatt: Frommann–Holzboog.

PMG = Page, D.L. (1962) *Poetae Melici Graeci*. Oxford: Clarendon Press.

SVF = Arnim, H. von (1903–5) *Stoicorum Veterum Fragmenta.* Leipzig: Teubner, with vol. 4, indexes, by M. Adler, 1924.

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Abstract

I. Project Summary

Melody and Meaning asks what music can communicate, and how, according to critics and philosophers from the late Classical and early Hellenistic periods. What can melody express, if anything, and how does it exert its powerful emotional force on those who listen to it? These are among the most enduring and difficult questions in aesthetics – they have been subjects of lively debate among modern scholars such as (to name just a few) Eduard Hanslick, Susanne Langer, Kofi Agawu, Jenefer Robinson, and Roger Scruton. Much of this modern thought is rooted in theories of musical affect articulated by Plato and by others, such as Aristotle and Diogenes of Babylon, who took Plato's work forward. The ideas which underlay such theories – ideas such as representation (μίμησις) and ethical disposition (ἦθος) – are issues of longstanding interest in Classical scholarship. But there has not yet been a monograph devoted directly to musical representation in the Hellenic tradition, despite the centrality of the subject to the subsequent philosophy of art. This dissertation fills that gap in the literature by offering an intellectual history of musical representation and expression in Greek thought from its seminal description in Plato until its fulsome rejection in the 1st century BC by Philodemus of Gadara.

II. Chapter Outline

Each chapter focusses on the work of a central theorist, showing how his thought contributed to ancient scholarly discourse on the semiotics of music. Chapter 1 is a close reading of several Platonic dialogues, especially the *Republic*, *Cratylus*, *Laws*, and *Timaeus*, which ties together Plato's disparate comments on music and language into a coherent philosophy of representation in musical art. Plato uses earlier research by Pythagoreans such as Archytas of Tarentum and sophists such as Damon of Athens to argue that words and

melodies can complement one another by representing two aspects of one thought or event. Greek syllables are constructed to encapsulate the essence of ideas, while the tonal motion of the voice along a scale encapsulates the motion of the human soul when undergoing an emotional experience. According to Plato, both types of sound were divinely constructed to work together in one expressive act. Consequently, composers can and should write songs that preserve the natural link between a poem's verbal content and the emotional coloration of its melody.

As is often observed, Aristotle agrees with Plato that music can resemble and communicate emotion. But less frequently noticed is the fact that the Stagirite's views on language and the human soul are so different from his teacher's as to lay the groundwork for major changes which later theorists would make to the theory of musical affect. In particular, Aristotle believed that the sounds of words bear no intrinsic resemblance to the things they denote. Chapter 2 argues that although melody remains a powerfully expressive medium for Aristotle, it now accomplishes a fundamentally different kind of expression from the purely rational communication which is achieved by the conventionally assigned sounds of language. Words and tunes therefore can be made to work together, but are not naturally linked to one another as they were for Plato. Consequently, music can express emotion without any connection to the thoughts expressed by language, and melody may even be appreciated on its own aesthetic terms without reference to the message expressed by its words.

This separation between musical sound and linguistic meaning is made explicit by Aristoxenus, whose work is the subject of Chapter 3. The Tarentine uses Aristotle's principles of scientific definition to distinguish the purely aural experience of hearing and constructing beautiful melodies from the more comprehensive project of creating a depiction using syllables, beats, and notes. For Aristoxenus, musical expression entails combining three distinct artistic entities into one multimedia composition. But though language, rhythm, and melody may be fruitfully used in combination, they are internally governed by their own rules and evaluable on their own terms: melodies can be used as part of artistic expression, but they must first be well constructed according to the purely aesthetic criteria of harmonics.

Chapters 4 through 6 survey three different semiotic theories which emerge in the wake of this Peripatetic separation between sound and sense. Diogenes of Babylon (Chapter 4) used Stoic cosmology and Aristoxenean harmonics to update Plato's theory of ethical affect, arguing that even wordless music can embody in sound the psychological motions which constitute our emotional experiences. For Diogenes, melodies do not merely represent or resemble characterological traits such as bravery or temperance: they actually have those traits, so that listening to them over time necessarily generates the corresponding virtues and vices in the listener.

Meanwhile, the radical poetic theorists known as Euphonists (Chapter 5) asserted that poetic art consisted precisely in the use and evaluation of sound as sound, without reference to any representative properties which that sound may or may not possess. Inspired by Peripatetic distinctions between what would today be loosely referred to as form (ποίημα) and content (ποίησις), critics such as Heracleodorus and Pausimachus advocated a kind of criticism which evaluated poetry purely for the sound of its words. Euphonism applied musicological ideas like those of Aristoxenus to argue that the experience of hearing sound is the central value of all audible art, whether verbal (as in the case of poetry) or nonverbal (as in the case of instrumental music).

Finally, Philodemus believed that no sound of any kind has any inherently representative power, and so argued that melody is devoid of any use or value greater than that of delicious food or pleasurable physical contact. For Philodemus, the sounds of melody and rhythm are nothing other than an enjoyable garnish for the real meat of poetic art, which is linguistically communicated meaning. In an elaborate series of arguments worked out between two critical surveys, *On Poems* and *On Music*, the Epicurean makes the case that only thought, encoded conventionally into the sounds of language, can truly enrich, persuade, or otherwise influence the human mind. Philodemus' work, imperfectly preserved, thus represents the first extant sustained philosophical attack on the idea (by then a commonplace in Greek thought) that music is uniquely and fundamentally expressive of emotion.[1]

III. Methodology and Significance

As this outline shows, *Melody and Meaning* traces the genesis, complication, and deconstruction of an ancient Greek theory of musical expression originating with Damon and Pythagoras as digested by Plato. In doing so, the dissertation uses examples of actual written melodies from the ancient world to illustrate the philosophical and critical theories which it explores. This is a methodological approach which has not been used before; it has been made possible by dramatic recent advances in the study of Greek melodic notation which enable us to reconstruct our extant melodies more precisely than was previously possible. Thus, for example, Plato's musical philosophy is not only explicated but also used to inform a new reading of the famous melodic fragment from Euripides' *Orestes* preserved on Pap. Vienna G 2315 (= *DAGM* 3). Using real melodies has the benefit of bringing otherwise quite arcane theories down to earth, grounding the speculations of ancient theorists in the artistic culture with which they engaged every day.

What emerges is a newly dynamic and practical account of how the ancient Greek intellectual tradition responded to the musical culture which exerted such a powerful influence on popular and elite audiences alike. The thesis traces several related strands of thought about musical expression as they develop across the overlapping fields of linguistics, musicology, and literary criticism. Representation and signification are concepts which recur throughout a wide range of ancient sources, but isolating their role in the study of music allows for a detailed analysis of Greek thought on this enduringly difficult topic. Such an analysis will be of interest to specialists in the flourishing field of ancient Greek musicology. But it will also resonate with other members of the scholarly community and general public who wish to consider afresh, with the help of foundational ancient interlocutors, how music can complement and even transcend language to move and enrich its listeners.

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[1] *P. Hibeh* 13 offers a glimpse into another such attack from as early as 390 BC, but its claims are less precisely articulated and its assault a more general one against various different forms of musical philosophy.

Part I

Introduction

The Semiotics of Music in Greek Theory

La parole humaine est comme un chaudron fêlé où nous battons des mélodies à faire danser les ours, quand on voudrait attendrir les étoiles.

– Flaubert, *Madame Bovary*
(1856, édition Classiques de Poche (1999), p. 301)

I. Project and Scope

The subject of this thesis is the semiotics of music in Greek aesthetic philosophy and poetic criticism between the late Classical and early Hellenistic periods. The project unites under one heading several strands of Greek thought about music which have received considerable scholarly treatment in other contexts, but which will benefit from sustained attention as features of an ongoing discourse in antiquity about what and how musical sound can express, if anything.

This question – whether and in what ways music can be said to 'mean' or 'express' something – animates the modern study called music semiotics. Historically, that study has deep roots in Greek antiquity. It arose over generations in response to a set of ideas about emotional imitation (an *Affektenlehre*) which takes its cue in the eighteenth century from Aristotle's quasi–Platonic theory of musical ἦθος.[2] Plato's and Aristotle's views, and the differences between them, are the subjects of Chapters 1 and 2 of this dissertation – they will turn out to be more subtle, and more distinct from one another, than is often implied by modern reworkings. But Aristotle may be said to have handed on from Plato to modernity the idea that melodic patterns can imitate, in stylised form, the internal agitations which constitute emotional experience and generate patterns of vocal intonation.[3]

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[2] See Monelle (1992) 1–5.

Numerous variations of this theory were current in 1854 when Eduard Hanslick mounted his famous attack on musical expression, arguing that what we hear in music is not any kind of content external to the sounds, but rather musical forms themselves – to be understood and appreciated in terms unique to those forms.[4] Responses to Hanslick have followed many lines of argument in order to rehabilitate the thesis that music contains within it something other than just formally structured sound. Susanne Langer's *Philosophy in a New Key* advanced the influential claim that 'music is not the cause or the cure of feelings, but their logical expression' – a symbolic language which suggests general patterns of emotion without attaching them to specific events or ideas.[5] There have been those, such as Jenefer Robinson, who have maintained a theory advanced already by C.P.E. Bach and others, that music is the result of a process catalysed by a musician's genuine emotional experience, which the music thus captures and conveys to its listener.[6] Others, notably Peter Kivy, have argued that musical forms can be expressive of feelings without the composer ever having felt the relevant emotion – on this model we read emotions into melodies and chord progressions the way we read them into the faces of dogs: not because they tell us accurate information about the experience which generated them, but because they have features which we naturally interpret as emotional.[7] The idea of any direct 'one–to–one' resemblance between music and emotion has been largely abandoned, but the idea of a connection between the two is alive and well. It usually hinges on some concept of 'motion' or 'movement': melodies or chord progressions are said to 'move' metaphorically along the tonal spectrum in a way which calls to mind or even stimulates the trajectory of a human being's soul or body as it undergoes an emotional experience.[8] In this the modern discussion of music's content has not traveled far from the core of Plato's theories and those of his ancient successors – most of whom, as will become clear, drew some link between musical and psychological motions.

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[3] See Neubauer (1986) 98–100 for the version of this theory which attributes to melody a direct imitation of human speech patterns; Webb (1769) 5–7 makes the object of imitation not vocal motions but internal neural movements in states of emotional passion; both of these attitudes are analogous to ideas expressed in Plato, as Chapter 1 will show.

[4] See Hanslick (1922) 1–20, 43–8, 160–74: '*Wo nicht eine Form von einem Inhalt dem Denken trennbar erscheint, da existiert auch kein selbständiger Inhalt.*' Cf. Monelle (2000) 149–51.

[5] See Langer (1941) 167–96.

[6] See Bach (1753); Robinson (2005) 310–21. Cf. Higgins (2012) 121–31.

[7] See Kivy (1980) 54–6, 83; Davies (1994) 228–9.

Yet for all this, Greek theories of musical expression have become mostly peripheral in modern scholarship both on music semiotics and on ancient aesthetics. Music semiotics, which became rigorously formalised as a discipline in the mid–twentieth century, took many cues from linguistics and so came to seek a 'scientific description' of the syntactic parts of music, as well as a comprehensive theory of how they function to make meaning.[9] In its strictest form this approach may be described as a search for the 'semantics' of music: not simply an attempt to describe music's expressive capacities, but an effort to systematically articulate the mechanics whereby it accomplishes its expression.[10] Greek criticism has much to say about the semiotics of music, but it does not furnish anything like a musical semantics, and so the use made of it in modern philosophy is often indirect or indeed unacknowledged.

In the field of Classics, musical representation is often subsumed under the study of μίμησις, a term which covers all kinds of imitation, reproduction, and representation. Μίμησις is central to the present dissertation, which is deeply indebted to modern treatments of that subject. But also central is σημείωσις, the communication by and inference from signs. This too is a topic which receives its own scholarly attention, but which is not often discussed solely in musical terms as a feature of Greek thought about music. That music can furnish both a μίμησις and a σῆμα in Greek theory will quickly become apparent from the source texts used here; that the ideas enunciated in those texts have had currency long after antiquity may be seen already from the brief foregoing survey of modern work on music semiotics. That is why a study of representation and expression in Greek music will be a welcome addition to the literature. This thesis isolates musical meaning and/or expression as a subject unto itself in the Hellenic intellectual tradition, thus enabling a continuous examination of how ideas on the topic developed over time.[11] My focus is on melody and its interrelation with words as a vehicle for expression; rhythm is a significant but a secondary object of attention here as it often is in our extant sources.

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[8] E.g. Wittgenstein (1980) 51–2; Davies (1994) 229–40; Scruton (2009) 43–8 *contra* Budd (2003); see further below, p. 33 with n. 74.

[9] See Ruwet (1975) 33; Nattiez (1975) 45–61, 101; Monelle (1992) 27–31.

[10] See especially Agawu (2014) 7–14.

This project both contributes to and benefits from the recent developments in the field of ancient Greek music, which has seen an abundance of interest and progress in the past several years.[12] But my work will also be of interest to those who study musical expression and meaning in general. Greek thought is foundational to that study in the West, and an elucidation of some major developments during the crucial years on which this book concentrates will therefore enrich the understanding of those who wish to make a modern approach.

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[11] Some important studies have laid the foundation for this approach, esp. Sifakis (2001); Halliwell (2002) 234–59; Kramarz (2017).

[12] This is thanks especially to Rocconi (2003); Barker (2007); Hagel (2009); D’Angour (2015); Weiss (2017); D’Angour and Phillips (2018).

II. Key Terms: ‘Music’ and ‘meaning’

a. The meaning of ‘meaning’: Μίμησις and σημείωσις

The long afterlife of Greek ideas about musical expression creates some danger of anachronism for a dissertation about melodic meaning and expression in Greek antiquity. There have been, and continue to be, many different ways of saying that music ‘means’ or ‘expresses’ something, and one aim of this study is to show which ways of understanding musical meaning may be legitimately attributed to the authors discussed. Broadly, the subject at hand is any theory according to which music conveys something other than mere sense–data: I will be asking whether and how each theorist can claim that what we hear when we hear melodies is anything more than simply a string of sounds. Two primary words in Greek for denoting the relationship between some one thing and some other thing towards which it points are μίμησις and σημείωσις – in the modern terms of Saussure, these words may be said to indicate a relationship between a *signifiant* and a *signifié*. But both μίμησις and σημείωσις may be further parsed into different modes or categories of depiction, representation, communication, and so on. A brief survey of those modes will help set the parameters for what melody can do in the texts discussed here.

Μίμησις, rooted as it is in concepts of ‘imitation,’ is the more likely of the two terms to suggest a ‘representation’ by way of some resemblance. This will be apparent from Chapter 1 onwards: mimetic significance, when attributed to music, makes melodic and rhythmic sound into two of many media in which an artist or creator may form an image (εἴδωλον) or a likeness (ὁμοίωμα) of something.[13] The ‘something’ which melody usually resembles is, first and foremost, the tonal patterns of the human voice in emotive speech. But those patterns themselves will turn out to resemble, sometimes by way of isomorphism but sometimes more abstractly, the movements of the human soul and, in some cases, those of the universe. The nature of the likeness and its proximity to its model varies greatly, and may involve a high degree of stylisation. But at least one critic, Diogenes of Babylon, argued for so exact a resemblance as to transcend the language of μίμησις and collapse the distinction between signifier and signified: for him, melodic lines and ethical states are so essentially similar to one another as to be functionally identical, and tunes may be meaningfully described not only as resembling characteristics like courage but as actually having such characteristics. One feature shared by all these mimetic or post–mimetic theories of musical expression is that they consider music's representational properties to be natural, a consequence of some inherent φύσις which makes melodies and voices move in the same way as souls do.

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[13] See below, pp. 23–5 on especially Pl. *Sph.* 235b8–6c8, 264c4–5, 265a10–b3, 266d8–e1.

Σημείωσις, on the other hand, denotes the act of designating and interpreting sensory tokens wherefrom one can infer information not immediately available to the senses. The relationship between a σῆμα or a σύμβολον (a sign or symbol) and its referent may be natural or conventional, but it need not be one of resemblance. If I see smoke I infer the existence of a fire; if I see a road sign bearing the letters 'SCHOOL XING' I infer the presence of children during the usual hours of commute. Both of these are instances of σημείωσις, but neither operates by way of imitation or resemblance. Smoke arises naturally from fire but does not resemble it; the letters 'SCHOOL XING' are conventionally assigned to places where children walk but do not resemble walking children. However, a road sign bearing a picture of a mother and child crossing the street is also something from which I can infer the presence of children – this is a kind of σημείωσις which does function by means of resemblance. The key feature in all three instances is the fact that I experience something with my senses (a picture, letters, smoke) and can reliably derive from that experience information about something beyond the reach of my senses (children, fire).[14] Σημείωσις is a concept which lends itself most readily to the analysis of language – words can be fruitfully understood as 'signs' or 'tokens' of their referents – but it will also emerge at several key points as a way of accounting for the effects of melody on its listeners. In some rare cases – such as the case of the trumpets used to give signals in war time – Philodemus will claim that melody participates in a σημείωσις analogous to that of language, taking on conventionally assigned meanings which suggest no natural resemblance between the relevant melody and the action it stimulates. Indeed, Philodemus' rejection of the traditional Greek semiotics of music owes much to the Epicurean emphasis on inference from conventional signs as the primary or only means of transferring rational thought between two human beings.

A key distinction between the theorists discussed in this book will be whether they think that melody and language perform the same or different kinds of expression and communication. For Plato, both words and tunes are mimetic, although in different ways – they both use sound to create likenesses, of essences and emotive utterances respectively. A crucial change comes with Aristotle, who retains the natural mimetic account for melody but rejects it for language. For Aristotle, musical poetry is a kind of μίμησις, but a word is a σύμβολον, a conventional symbol of some inward psychological activity. Scholars working after this fundamental shift tend to view melody and language as functioning in essentially different ways and as working together, if at all, because a composer chooses to use them both for the same depictive ends. The separation between words and tunes becomes particularly explicit for Aristotle's pupil, Aristoxenus, and it provides a framework for both

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[14] These three kinds of σημείωσις can be usefully categorised using Charles Peirce's influential designations of icon, index, and symbol: an icon represents something by way of resemblance (like a road sign with a picture); an index enables inference because of its reliable relationship to that from which it arises (like smoke from a fire); and a symbol conventionally denotes something to which it bears no intrinsic relationship (like a road sign with writing on it). See Peirce (1982–2009) 2.53–6.

Philodemus and the Euphonists as they aim to draw their respective barriers between sound and sense, poetry and music. In these pages, the question whether melody adds any kind of meaning or content which language does not already contain will often hinge upon whether melodies can accomplish a different kind of communication than words, and if so whether they can be fruitfully used in combination with one another.

b. The meaning of 'music': Μουσική and ποιητική

Equally vulnerable to anachronism in a discussion of ancient Greek sources are the words 'music' and 'poetry,' or any other English rendering of the two τέχναι designated as μουσική and ποιητική. The latter denotes all kinds of 'making' – not just the composition of verses but the construction of many other things as diverse as tables and arguments. The former in its broadest sense can refer not only to the songs and compositions which we might casually call 'music,' but also to the various kinds of political, cosmic, and psychological order to which a writer of Greek might refer, directly or by analogy, as objects of musical study.[15] But within those wide semantic ranges there were specifically artistic usages which were usually understood as the primary meanings of the term, although these too are not what we typically mean when we use the English words 'music' and 'poetry.' Plato tells us that 'musical and metrical production' is the most straightforward meaning of ποιητική, so that the word might be said to describe verbal and non–verbal artistic compositions in which sound is given regular and rhythmic form.[16] Μουσική, meanwhile, is very often described as the representative art which uses one or a combination of three media: verbal language (λόγος), tonal arrangement (ἁρμονία), and rhythmically structured time (ῥυθμός).[17]

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[15] On the semantic fluidity of these two words, and the ways in which critics specified particular artistic usages for them, see Klavan (2019a) with further bibliography.

[16] Pl. *Smp*. 205b8–c10.

There is a fair degree of overlap between these two meanings, neither of which is exactly the same as the corresponding English term: both μουσική and ποιητική may refer both to wordless tunes and to metrical language (whether spoken or sung). But distinguishing between the two arts and disambiguating the two words will become a major project for the Hellenistic theorists discussed in Part II, especially Philodemus and the Euphonists. Each of these scholars is concerned, although in very different ways, to articulate exactly what makes poetry different from music and other forms of art. Each also wants to make meaning or its absence into an essential dividing line in that discussion. For the Euphonists, poetry is precisely that use and appreciation of language which bears no reference to the meaning conveyed but treats verbal sounds and musical notes both as sounds to be enjoyed for their sensory impact. For Philodemus, the fundamental question is whether a set of sounds does or does not have encoded within it the conventional meanings that we use to communicate thought. If the answer is yes, then those sounds are language, whereas if the answer is no, then the sounds are music – which Philodemus wants to define differently from many before him by making meaninglessness into its essential feature. In this way, the kind of communication that a sound accomplishes becomes an increasingly important factor in determining whether that sound is musical or poetic. The back–and–forth between what constitutes meaningful sound, and whether such sound may be described as musical or poetic, will be a focus of this dissertation's second half.

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[17] See Pl. *R*. 398d1–3 (and cf. *Gorg*. 501d7–2b8); Arist. *Po*. 1447a13–23; [Plu.] *De Mus*. 1144a8–b2. Here as usual, the term λόγος is irresistibly polyvalent; Plato uses it both to indicate the ineffable 'meaning' or 'noetic content' behind all utterance, and also the specifically verbal form which some vocal utterances may take (see below, esp. p. 17. Cf. 152–3). The latter meaning, however, is probably closer to what he and those who follow him mean in the tripartite definition to which I allude here.

III. Methodology and Significance

The argument proceeds in two parts of three chapters each, bookended by two opposing maxims about musical composition. Chapter 1 begins by unpacking Plato’s assertion via Socrates at *R.* 398d8–9 that ‘intonation and rhythm must follow upon the λόγος.’ Chapter 6 finishes by articulating the principles behind Philodemus’ pronouncement at *On Music* 4.CXLIII.30–3 that Pindar and Simonides, ‘insofar as they were musicians, made meaningless noises. But insofar as they were poets, they composed λόγοι.’ The first of these statements represents a foundational claim for the semiotics of Greek music, namely that musical form can emerge organically out of some rational meaning or content which dictates the lexical shapes of a sung poem just as much as it dictates the contours of its melody. The second results from a definition of music in contradistinction to language designed in part to explode the tradition of affective expression which arose out of Plato’s comments. Philodemus wants to define music as just that set of sounds in a poetic composition which are meaningless (ἀσήμαντα), and musicians as those who busy themselves with the pleasing arrangement of such sounds – as opposed to poets, who work in the medium of language and so produce meaningful words (λόγοι). The intervening chapters are dedicated to identifying and explicating some major theoretical developments which led from Plato’s position to Philodemus’.

Thus, in Part I, Chapter 1 charts Plato’s theory as it emerges out of earlier work by, among others, Damon of Athens and Pythagoreans such as Archytas of Tarentum. Then Chapter 2 shows how Aristotle’s nominal endorsement of this Platonic ‘ἦθος theory’ was complicated by his departures from Plato in other areas of philosophy, particularly linguistics. When Aristotle breaks the natural link between words and their referents, he also makes melody and language into distinct entities which operate according to their own principles. The two are thus capable of working together in one coherent depiction if manipulated by a skilled artist, but not intrinsically inclined to do so by their very natures. This separation between text and melody is made official by Aristoxenus (Chapter 3), whose express aim is to designate principles according to which music may operate as an aesthetically pleasing auditory experience without reference to the content that it may or may not help to convey.

This gradual division between musical sound and linguistic meaning has diverse repercussions in the Hellenistic era, and those repercussions are the subject of Part II. The lacunose fragments of Diogenes of Babylon (Chapter 4) show the Stoic reworking ἦθος theory in light of Aristoxenus' innovations and in the developing technical vocabulary of the Hellenistic Schools. Meanwhile, the unorthodox and enigmatic theorists known as Euphonists (Chapter 5) were influenced by both Peripatetic and Stoic philosophy to define poetry in purely aural terms as a pleasing arrangement of verbal sound. This counterintuitive but powerful approach to literary art opened up new ways of thinking about musical poetry and of drawing divisions between its constituent parts – the old tripartition between λόγος, ἁρμονία, and ῥυθμός need no longer cut to the bone. Instead the fundamental distinction was between the purely sensory aspects of a composition and its cognitive content. It is in responding to the Euphonists, and attempting to leverage their own methodology against both them and Diogenes, that Philodemus (Chapter 6) comes up with an Epicurean model for music which denies it all meaning, content, or expressive power.

In each of these chapters (except in Chapter 5), I use brief excerpts from our extant melodic fragments to illustrate the theoretical model under discussion as I interpret it.[18] This is a methodological approach which has not yet been attempted in the study of Greek music.

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[18] In Chapter 5, the best illustrations are poetic citations furnished by the Euphonists themselves.

Its purpose is twofold: first and foremost, applying theoretical principles to actual music can help to bring the relevant doctrines down to earth and make them into more than mere abstraction. Theory becomes clearer and more intuitive when it is applied to an example of the art which it is intended to describe. That is standard practice in modern work on music semiotics, but it has yet to be undertaken in work on Greek music. The benefit goes both ways: ancient theory can also help guide and inform our analysis of ancient melody. The ideas analysed in this dissertation represent considered responses by educated listeners to music of the kind represented by our extant written tunes. We must always to some extent be listening to those tunes with 21st–century ears, but the statements of these theorists can help us go beyond our modern preconceptions to ask how a contemporary listener's understanding of the works in question might have differed from our own. The study of Greek music has only recently reached a degree of precision which enables us to reconstruct these written melodies and to be fairly confident in their accuracy. The challenges inherent in doing so will be discussed as my argument unfolds. But at the very least, these tunes have untapped potential as examples to think with, and as tools for enriching our understanding of musical practice and commentary in the ancient world.

Enough has been said to give an overview of the subject and methodology of this project. The novelty of that methodology can open up new avenues of inquiry in the lively field of Greek music, but the weight of the subject and the value of the project may be said to extend beyond Classics. As has become clear, the questions which will be discussed here are among the most enduring ones addressed by ancient philosophy, and many of the answers formulated by Greek theorists have made their impact felt up to the present day. Music exerts an undeniably compelling force upon its listeners, and it quite clearly communicates to them something more than the simple fact of its sounds. The delight, fascination, obsession, and agitation with which we respond to rhythm and melody go deeper than simple sensory satisfaction and (*contra* Philodemus) must be attributed to something more than pure physical pleasure. But just what it is we hear in music besides a successive string of alternating frequencies has always been and remains fiendishly difficult to put into words. Of course, if words were enough to explain it fully and satisfactorily, there would be no need for music in the first place. But the effort to describe at least partially what and how music means is an effort to touch with language a very profound part of the human experience, a part which is as defiantly universal in its essence as it is endlessly diverse and culturally contingent in its material particulars. The Greek reflections which we examine here are first and foremost about musical expression, but by consequence they are also about the human psyche – the intensity of its inner life, how it struggles to encapsulate that life in sound, and how what is thereby communicated manages to transcend the grunts, bangs, and squeaks which we use as signifiers. The thoughts on those subjects which were developed within the Hellenic traditions studied here have been foundational for so much subsequent work on the topic, that an effort to understand the Greeks on these points is an effort to understand ourselves. Examining the ancient semiotics of music and its historical development can therefore help to illuminate for the modern reader what it is that music does, and to explain its essential vitality both in our generation and in those that preceded ours. Grasping these ancient theories can encourage us to understand and appreciate more deeply our own various forms of music, and to hear them with a fuller awareness of the ways in which they enrich us. If this thesis can make a modest advance in that direction, it will have succeeded.

Chapter I

Λόγος in Motion: Μίμησις and Musical Meaning in Plato

An account of semiotics in Greek musical thought must begin in earnest with the dialogues of Plato. This is not because Plato was the first ancient Greek to give systematic scholarly attention to music – in antiquity that ground was said, rightly or wrongly, to have been broken by Lasus of Hermione.[19] But Plato's work survives in written form. The same cannot be said of Lasus, nor of Pythagoras of Samos or Damon of Athens – two other key figures in the history of Greek musical philosophy to whose thought Plato is a crucial but troublesome witness. Moreover, though the followers of Pythagoras and Damon contributed much to the theories of musical expression which we find articulated in Plato, it is the Platonic version of those theories – manipulated and weaponised in support of Plato's own philosophical agenda – which made the most lasting impact on Hellenic intellectual culture. This chapter outlines Plato's semiotics of music as it emerges from a close reading of his dialogues, and it also excavates those imperfect remains of Damonian musical ethics and Pythagorean harmonics which have bearing on musical expression and communication.

The philosophical attitude which emerges from such an endeavor is not the censorious philistinism sometimes attributed to Plato on the topic of music. Instead we will find an intricate description of how sound, language, text, and tone interact to generate representational expression. Plato's full theory of musical expression must be pieced together from a number of his dialogues and fleshed out by comparison with his work on language and psychology. But across these texts it is possible to discover a coherent vision according to which the sounds of the Greek language contain in themselves both ideas which the mind may grasp, and the outlines of a tonal movement which naturally resembles the movement of the speaker's soul in a given emotional state. Those basic premises allow Plato to account both for the communicative function of language and for the visceral emotional grip which that language can exert on a listener when its pitch–accents are stylised into a stirring melody. This in turn forms the basis of his claim that music is uniquely capable of shaping a listener's ἦθος, the habitual emotions which his soul is inclined to feel in response to certain circumstances and ideas. Almost all of the subsequent thought discussed in this book takes this theory of ethical affect in music (ἦθος theory) as a point of departure in some way. Some later thinkers will endorse and flesh out Plato's model, others will modify it, and still others will react against it and raise problems with the idea that melody has any natural capacity to resemble experiences in the human soul. Therefore, the first task for a student of Greek semiotic thought on music is to seek as detailed a picture as possible of how Plato thinks language, melody, and rhythm can combine their different forms of representation into the multimedia art which is sung poetry.

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[19] See Barker (1984–9) 2.14, 29; Porter (2007) 1.

I. Following the Words

a. Two ways of reading *Republic* 398d8–9

My basic contention in this chapter will be that Plato thinks melody and language are two different types of μίμησις – two distinct modes of representation – which are naturally meant to work together in depicting two different aspects of one action or experience.[20] Two fundamental questions which such an argument must answer are what kinds of representation are at stake, and how their copartnership is supposed to work. What sorts of μίμησις does Plato think that words and melody can accomplish, respectively, and how does he think they are supposed to be related to one another? These two questions have received considerable attention, because they are jointly raised by a bold and somewhat ambiguous claim, made by Socrates in the *Republic*, that 'intonation and rhythm must follow on from the λόγος.'[21]

According to one widely held interpretation of this statement, Plato is here advocating 'the subordination of harmony and rhythm to words,' so that composers' purely melodic and rhythmic choices should be dictated and preceded by their lexical ones.[22] I will call this the 'decorative' interpretation of Plato's stance, according to which the poet first completes a full verbal composition and then 'decorates' it with an appropriate rhythm and melody.[23] Presumably that appropriateness would be evaluated according to the tonal contours and metrical structure of the words already in place: once the words of a poem have been decided upon, the vowel lengths and pitch–accents of those words as they would be uttered in normal speech set the parameters for the melody and rhythm of the sung version as well. This interpretation would fit well with Plato's open distaste for the 'New Music' and all its transgressive practices, including the decoupling of melodic contours from pitch–accent patterns.[24]

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[20] Much of what I say here could also be applied to rhythm, which, like melody, appears in Plato as a natural feature of the Greek language waiting to be artistically stylised so that a piece gains the appropriate emotional weight. Melody is my main focus here, and Plato himself tends to treat rhythm as an afterthought, but by and large the way in which it is supposed to work may be inferred analogously from the way in which melody emerges out of speech.

[21] Pl. *R*. 398d8–9: τήν γε ἁρμονίαν καὶ ῥυθμὸν ἀκολουθεῖν δεῖ τῷ λόγῳ. Pelosi (2010) 32 compares 399e11–400a3 and 400d3–4.

[22] Pelosi (2010) 32; see also Woodward (2010) 236. This view is also implied in the translation and commentary of e.g. Harap (1938) 160; Adam (1963) 156; Grube and Reeve (1992) 74; Csapo (2004) 218; Rocconi (2016) 80.

[23] I here follow the view that Plato means by ἁρμονία a tuning system which determines the notes available for musical composition and thus dictates the routes a song's melody may take. See further Brancacci (2008) 13–16 (on ἁρμονία and the related term τρόπος); Barker (1982) 195–7 *et passim*, (1984) 163–8, (2013) 415–6 n. 4 (on the plural ἁρμονίαι but relevant to this section of the *Republic*, which Barker cites).

Yet the decorative reading neglects an important distinction, which Plato himself may have been among the first to make, between the terms λόγος and λέξις.[25] The latter refers more properly than does the former to a poem's diction – that is, to the actual choice of words to be used. Λόγος, by contrast, has more to do with the underlying meaning of those words. The distinction can be seen at work in the *Theaetetus*, where Plato's Socrates stresses the difference between the actual phonemes uttered in speech and the meaning which they collectively convey. Quizzing Theaetetus, Socrates lists a number of ways in which one might verbalise the concept of 'six.' When we say 'six' or 'twice three' or 'thrice two,' we use different words, but 'have we not indicated the entire six with each λέξις?'[26] Indeed we have, and one problem with which Socrates grapples here is precisely the fact that atomising λέξις to its constituent parts does not suffice to give a full account of the λόγος which a word or sentence communicates.[27] A word's λόγος, then, is not reducible to its phonetic components. This suggests that whatever Plato has in mind when stipulating that musical sound 'must follow on from the λόγος,' he need not be insisting that a poet first decide upon the exact words he will use before wholly subordinating his melodic composition to that predetermined lexical structure.

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[24] See Pl. *Lg.* 669c3–70a3 with Csapo (2004) 209–225, 236 *et passim* on Plato's 'violent antipathy to every feature of New Musical style.' Cf. Woodward (2010) 239–40; Griffith (2013) 16; Folch (2016) 120.

[25] See Porter (2004) 135, *pace* Rocconi (2016) 80.

[26] Pl. *Tht.* 204c6–7: οὐκοῦν ἐφ' ἑκάστης λέξεως πάντα τὰ ἓξ εἰρήκαμεν;

[27] Pl. *Tht.* 203a1–6, 206c7–7c4. See further Bostock (1988) 202–22; Burnyeat and Levett (1990) 205–18 for a summary of the philosophical concerns at stake.

An alternative reading is that Plato wants melody, rhythm, and diction all to serve the underlying meaning which they are designed to convey. The precise relationship or hierarchy between λέξις and ἁρμονία is thus left undetermined, and Plato merely affirms that λόγος, here indicating meaning or thought, ought to dictate all of a poet's compositional choices – be they lexical, melodic, or rhythmic.[28] I will call this the 'radial' interpretation, in which Plato imagines a poem's λόγος to be its purely cognitive core meaning, out of which 'radiate' all its perceptible qualities including ἁρμονία, ῥυθμός, and λέξις. At first blush this is a more promising approach in that it makes for a more plausible picture of the actual composition process. If, as Plato wants to claim, melodies should conform to the pitch–accents of words, then a composer does not write just any melody but allows both his diction and its attendant tonal contours to emerge out of the thought or image he wishes to convey.[29] But that leaves us questioning how any kinds of sounds, be they lexical or melodic, ought to 'emerge' out of a poet's chosen content. What is the relationship between the idea or image expressed by a sung poem and the sounds of that poem as sung – both the sounds of its syllables, and the sounds of the melodic path along which those syllables travel as guided by their pitch–accents?

b. Sounds like other sounds: Some interpretative help from the *Cratylus*

An obvious but difficult place to look for Plato's views on meaning and sound is the *Cratylus*. This dialogue presents a number of models for the relationship between a word's sounds and its referent, and it is not entirely clear which one or combination of these models Plato means to endorse, if any.[30] By and large I agree with Sedley (2003a) 28–41, 81–6 that Plato seriously believes the first linguistic names were created to represent their referents as perceived and comprehended by the first human speakers.[31] The dialogue seems to assume that this representational relationship is still recoverable within the language descended from those original names, and that the names of things are as a rule derived from phonetic imitations of their referents' essential being (οὐσία). Thus the survey of primary sounds and names at 426c1–27d2, though avowedly hypothetical in its particulars, offers genuine examples of how etymologies should work in a semantic system where vocal sounds aurally imitate the real–world things they describe.[32] This imitation is couched in terms of μίμησις: he who assigns names to things is able to 'imitate (μιμεῖσθαι) the being (τὴν οὐσίαν) of each thing in letters and syllables.'[33] As Ademollo (2011) 278–80 argues, this means that if a name correctly denotes *X*, then it represents 'something which *X is* in a special and fundamental way, something which makes it into the very thing it *is*.'[34] One among many examples of this in the dialogue is Socrates' assertion that the rush of breath involved in producing φ, ψ, σ, and ζ recreates in vocables the essence of τὸ φυσῶδες, that which is windy or breezy.[35]

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[28] Something like this is suggested by Rosen (2005) 107: 'the speech of music must follow the same model as narration, and the modes of harmony and rhythm must conform to these models as well.' Cf. Brüllmann (2013) 351.

[29] Notice also that at *Lg*. 669c3–8 the Muses, who are here praised for rightly joining words, melody, and rhythm, are described both as 'assigning' (ἀποδοῦναι) tunes to words and as assigning speech and tunes to rhythm – the various sonic features of a musical composition are figured here as being joined to one another in a number of different orders. Cf. Martin Bloomer (2013) 316.

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[30] For a succinct survey of some possible interpretations see Long (2005) 43–4.

[31] *Contra* the qualified 'ironic' reading of e.g. Baxter (1992) 86–106 and the more full–throated dismissals of Raeder (1905) 149; Guthrie (1978) 23–5; Chen (1982) 90–91 with n. 46.

[32] See further Grote (1865) 516–29, 539–40; Chen (1982) 91–2; Sedley (1998) 141–7; Ademollo (2010) 237–41, 302–15; Mackey (2016) 69–70.

[33] Pl. *Cra*. 423e1–24a6.

[34] Ademollo is here unpacking *Cra.* 423e1–6 and the meanings of εἶναι for Plato in comparison with those relevant to Aristotelian ontology. Sedley's (2003a) 83–6 'elastic' interpretation of οὐσία here seems somewhat too broad, since we are clearly looking for an essential feature of the thing described as opposed to something accidental like its color. But Sedley raises the important point that since two words may designate the same entity in Plato, there is obviously more than one way to encapsulate an essence in syllables. I discuss this fact further below, pp. 20–21. But one way to resolve the difficulty Sedley raises is to say that names only capture some aspect of the essence rather than the entirety of it, and thus different aspects may be revealed in different names. So in Sedley's example of 'leader' and 'good at war,' both names designate features of what it is to be a leader, although neither exhaustively embodies the full essence of leadership.

It should be noted that although the Socrates of the *Cratylus* believes in a naturally correct way to assign names, he does not believe that correctness consists in getting exactly right some unique lexical sound which alone can describe the thing named. Rather, correctness implies an accurate rational perception of the referent's essence and an apt use of sound to form a likeness of that essence. Thus there is not one and only one sound to correctly represent each οὐσία. Rather, different onomasts in different cultures may choose different sounds to represent the same thing, 'for neither does every smith work with the same iron, though he makes the same tool for the same purpose.'[36] What matters is essence correctly perceived and represented, not the exact sound used in that representation. So where the Greek namegiver used φ to represent breeziness, we may imagine that the English namegiver used 'sh' and the Hebrew namegiver ח.[37] What this implies is that although οὐσίαι may be represented in sound, they neither are themselves sounds nor have sounds which they invariably make.[38] Another result of this qualified naturalism is that multiple words may exist within the same language for the same thing, and each of those words may even convey a different understanding or attitude on the part of the speaker towards the thing named.[39] Both of these observations will have implications for the relationship between μέλος, λέξις, and λόγος in the dialogues which deal more expressly with music.

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[35] Pl. *Cra*. 427a1–7.

[36] Pl. *Cra*. 389d4–90a3: οὐδὲ γὰρ εἰς τὸν αὐτὸν σίδηρον ἅπας χαλκεὺς τίθησιν, τοῦ αὐτοῦ ἕνεκα ποιῶν τὸ αὐτὸ ὄργανον.

[37] See Chen (1982) 89; Baxter (1992) 64; Sedley (1998) 148, (2003a) 66–7, 81–2.

[38] This is why someone who barks like a dog or *moos* like a cow has not named the animal he imitates (*Cra*. 423c1–10), and why 'representation' is ultimately a better translation than 'imitation' for the μίμησις that words accomplish.

[39] See Sedley (2003a) 81–6 on *Cra*. 394b2–d1. Of course, Socrates' stance also implies that names may be incorrect if the namegiver misapprehended the essence of the referent — see especially 436a9–b11 with Ademollo (2011) 431–2.

But before leaving the *Cratylus* we can also extract from it an important observation about the representational properties of music's nonverbal components. When he specifies exactly what kind of representation is at play in language, Socrates makes his point clearer by comparison with other kinds of μίμησις, of which μουσική is one. Unlike language, μουσική imitates not the οὐσία but the φωνή of its representative object.[40] Since Plato is here discussing μουσική in contradistinction to the sounds of words, we can be reasonably sure that he is using the term to denote the specifically nonverbal elements of music.[41] Thus the assertion at once confirms that a thing's οὐσία is not its characteristic sound, and assigns representation of that sound to the nonverbal elements of music such as rhythm, melody, and harmony. This analysis leaves us in a better position to consider the respective roles of λέξις, ἁρμονία (and consequently μέλος) and ῥυθμός as Plato might envisage them contributing to the meaning conveyed by a sung poem. We might predict, based on what we have seen in the *Cratylus*, that the actual words of a poem will represent and thus communicate the essential nature of the thing the poem is about, whereas the melody and rhythms will create some kind of sonic likeness of the sounds made by that same thing.[42] If, for example, I were to sing the word 'doorbell' on a descending minor third, I would according to Plato have produced two distinct aural representations, one (the word) of what a doorbell is and another (the interval) of what it sounds like.

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[40] Pl. *Cra*. 423c11–d10.

[41] This is rare for Plato, who usually speaks of μουσική as a network of melody, rhythm, and words — see Busse (1928) 34; Woodward (2010) 236; Brüllmann (2013) 349.

[42] Cf. Gülgönen (2014) 99–100. For further discussion of this distinction, see Halliwell (2002) 44–8.

Taken on its own, however, this is not a theory which could account for the emotional impact and expressive power which Plato eventually wants to afford to music. The idea that music primarily communicates via the imitation of sounds from other realms of experience is a problematic one, and though it has sometimes had currency in modernity it does not hold water on its own.[43] Music is not a 'sound effect,' and it does more than simply reproduce things like the crash of waves or the ringing of doorbells. Indeed, if that were all music did, it would be hard to imagine why the modes and melodies of songs should possess such dangerous power over the listener's soul as to become subjects of the strict censorship we find advocated in the *Republic*. The question then becomes how making a μίμησις of something's sound can convey to us something more than just the sound itself. If I hear a tragic actor singing, and his words communicate to my mind the fact that his character is grieving, what does his melody add to that picture? What exactly are the melodic features of his song supposed to represent, and how are they supposed to do so? In order to answer these questions we need to be more precise about what the combined μιμήσεις of sung words may convey to their listeners according to Plato.

II. The Meaning of Μίμησις: Ways to 'represent' in Plato

a. The lay of the land

Among the challenges of understanding what Plato means by μίμησις in any given context is the extreme plasticity of the term's semantic range throughout the dialogues. We need not concern ourselves here with developing a 'unified field theory' of Platonic μίμησις – even if such a thing were possible, it would take an entire book to reconcile the various inconsistencies and shifts of emphasis which make the word such a moving target across the corpus. Rather than search for one comprehensive definition of μίμησις, it will be more fruitful for our purposes to outline some of the major possible ways in which something can be mimetic according to Plato, and to ask which of those may be involved in the composition and performance of musical poetry. It will be my particular concern here to identify the kind of μίμησις which is involved in emotionally affective music – what kind of musical representation is it in songs that exerts such a powerful grip on the souls of its listeners that they are in danger of being carried away into irrational histrionics? What, moreover, is the content of such songs, and how do they convey it? A number of interlocking but distinct kinds of 'imitation' or 'depiction' are possible for musical artists according to Plato, and a number of other kinds are involved in, but not essential to, musical art. Identifying the various mimetic properties of music will help give a clearer picture of how a sung poem might convey more meaning than that which is discursively communicated by its words.

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[43] See e.g. Avison (1752) 57–9; Harris (1765) 69, 95–6; Lippman (1986) 269; Monelle (1992) 2–3.

Perhaps the closest thing to a systematic attempt at defining what counts as a mimetic art is to be found in the *Sophist*. Even this dialogue, however, presents plenty of inconsistencies and problems. In it, the μιμητική is classed as a kind of productive art (ποιητικὴ τέχνη).[44] The mimetic τέχνη is also referred to as one of image–making (εἰδωλοποιική; εἰδωλουργική),[45] and under this broad heading is subsumed every kind of artistic representation alongside practices such as demagoguery and, eventually, sophistry itself.[46] What unites all these practices is that that they result not in an original product but in a copy (εἴδωλον), also described as a likeness (ὁμοίωμα), based on some model. The mimetic art is further subdivided into two categories, of which one is designated φανταστική. Arts which fall under this heading do not reproduce the proportions and colours of their model exactly but make adjustments for human perception so that they appear like, rather than being like, the original – the example given is that of large sculptures whose features must be distorted in order to account for perspective. The other kind of mimetic art, which does reproduce the proportions and colours of its original, is termed εἰκαστική.[47]

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[44] Pl. *Sph.* 219a8–b12; see further Halliwell (2002) 62–5.
[45] See further Pl. *Sph*. 235b8–6c8, 264c4–5, 265a10–b3, 266d8–e1.
[46] Pl. *Sph*. 265a10–8d5.

Within the *Sophist*'s configuration, that person can most properly be said to have accomplished phantastic μίμησις who, 'using his own person, makes his body or voice appear similar to your body or voice.'[48] In terms of music, this might at first glance suggest that only vocal music is truly mimetic. But this is a narrower application of terminology which is used more broadly elsewhere – if painters and sculptors are mimetic, as they are said to be at *Sophist* 235d6–6c5, then the word need not be restricted only to those arts which use the human body or voice and nothing else. Rather, just as ποιητική in the *Symposium* is given both a general and a narrow meaning, so in the *Sophist* there is a strict sense in which art that uses the human body or voice 'is perhaps most properly called' (μάλιστα κέκληταί που) phantastic μίμησις.[49] But the term μιμητική may also be applied more generally to 'artifical' forms of representation such as sculpture, painting, and instrumental music.[50] What is essential to mimetic art here, however broadly or narrowly understood, is the production of a copy or image based upon some original.

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[47] See Pl. *Sph*. 235d6–6c5. Given what is said at 267a6–9 (see below, p. 24 n. 48), it would seem likely that music would count for Plato as a phantastic art. But it is a testament to the fluidity of these terms throughout Plato's career that at *Laws* 668a6–7 the Athenian describes all μουσική as mimetic and eikastic: οὐκοῦν μουσικήν γε πᾶσάν φαμεν εἰκαστικήν τε εἶναι καὶ μιμητικήν;

[48] Pl. *Sph*. 267a6–9: ὅταν . . . τὸ σὸν σχῆμά τις τῷ ἑαυτοῦ χρώμενος σώματι προσόμοιον ἢ φωνὴν φωνῇ φαίνεσθαι ποιῇ, μίμησις τοῦτο τῆς φανταστικῆς μάλιστα κέκληταί που. See also *R*. 393c5–7.

[49] See above, p. 8, with n. 16 on Pl. *Smp*. 205b8–c10. This strikes me as a count against Koller's (1954) 37–48, 119–21 rather bold thesis that μίμησις originally applied only to representation in dance and music, and in favor of Else's (1958) 73–87 already very persuasive counterargument. Koller would say that by Plato's time the term's range had been expanded (for which Damon and the Pythagoreans were responsible), but it seems more likely that Plato is here contracting progressively what is originally a quite general term to specify that which 'is perhaps most properly called phantastic μίμησις.' For further assessment of Koller and Else see Sörbom (1966) 14; Nehamas (1999) 258–60; Pelosi (2010) 57–8 with n. 88; Gülgönen (2014) 97–8.

[50] At *Lg*. 669d6–e4, wordless instrumental music is probably mimetic, but less clearly decipherable than verbal music – see Sörbom (1994) 45 n. 28; Barker (2013) 394–6; Rocconi (2016) 80–81. Plato was not the last to think so: see e.g. Smith (1723–90) 170–71.

In *Republic* 10, Socrates gestures towards a broad definition of μίμησις which looks not unlike the one in the *Sophist*. Here the term seems again to denote not only artistic depiction but reproductive image–making of any kind.[51] In this framework artists practice a kind of imitation twice removed, because they copy the appearance of sensible objects which are themselves already reproductions derived from some essential Form. This notoriously seems to contradict the vexatious claim at *R*. 393c5–4c6 that not all poetry involves μίμησις, but only that which is in the form of direct speech – plain narration is composed ἄνευ μιμήσεως. Many have attempted to relate these two accounts of poetic μίμησις to one another, and almost as many have argued that such attempts are futile: perhaps these are simply two different usages of the term.[52]

We have seen already in the *Sophist* that Plato is at least happy to expand and contract the semantic range of μίμησις according to context. Moreover, the discrepancy between *Sophist* and *Laws* noted above (n. 47) suggests that he would not have insisted on terminological rigidity throughout the whole of his career. In the case of the *Republic*, however, some of the inconsistency can be (and has been) alleviated by taking into account the shift in topic between Books 3 and 10: broadly speaking, the former is concerned with performed recitation whereas the latter deals with original composition.[53] At issue in *R.* 392c6–8b5 is first and foremost the poet as performer — he who, for example, might 'pronounce a speech as if he were someone else' (λέγῃ ῥῆσιν ὥς τις ἄλλος ὤν).[54] It is in this context that Socrates begins to wonder 'whether we are going to allow our poets to imitate when making poetry.'[55] The question is one of active impersonation during the moment of ποίησις, that is in this case the moment of uttering a poem 'as oneself' or 'in character.' This is why Glaucon assumes that the question of 'fully' versus 'partially' mimetic poetry turns upon whether drama is to be allowed in the *kallipolis* (394d5–6). In particular there is a concern that the guardians might perform mimetically in the theatre as elite citizen males do in Athens, thus violating the purity and uniformity of their societal role.[56]

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[51] Pl. *R*. 595a1–607a9; see especially 596d2–7e5.

[52] See McKeon (1936) 5–7; Annas (1981) 337–44; Janaway (1995) 126–8; Giuliano (2005) 74–7; Cain (2012) 189 for arguments that the two books represent an attempt to reconcile two ultimately inconsistent applications of the word. Others (e.g. Woodruff (1992) 75–8; Halliwell (2002) 37–71) argue that Plato would not have felt the need to effect such a reconciliation at all, since he was content to use the word differently in different contexts. Burnyeat (1999) 286–300; Belfiore (2006) 88–114; and Lear (2011) 201–16 argue that the word is used consistently throughout the *Republic*, but that Book 3 and Book 10 discuss different aspects of the same representational act. For further summaries of scholarly views on the topic, see Naddaff (2002) 70–91; Belfiore (2006) 88 with nn. 4–8; Marušič (2011) 219–21; Cain (2012) 189 with n. 3.

In a performative setting, then, perhaps Socrates thinks that merely to recite a poem without direct discourse is not to engage in imitation. In that case, someone delivering a Pindaric ode or a section of narrative epic does not pretend to be anything other than a performer reciting a poem. It is only when he speaks in the person of another – on the stage or in the voice of some imagined epic character – that the performer uses his own voice and body to create a likeness of someone else and thus to engage in μίμησις. By contrast, in Book 10 Socrates' target is the composers themselves. There the concern is with the act of creation and composition, which is always μίμησις, as both *Sophist* and *Republic* 10 make clear. Whereas a speaker can describe a table without pretending to be a table, a poet cannot depict that same table without forming an image of it using language, rhythm, and melody. This is why all poetry is μίμησις from the compositional perspective of Book 10, whereas from the performative perspective of Book 3 only direct discourse in character qualifies.

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[53] See further Laks (2010) 221–2; Prauscello (2014) 155–8. Similarly Havelock (1963) 20–60; Kosman (1992a) 52–4, (1992b) 73–81, 88–91; Murray (1992) 38–42.

[54] Pl. *R.* 393c1–4.

[55] Pl. *R.* 394d1–4: πότερον ἐάσομεν τοὺς ποιητὰς μιμουμένους ἡμῖν τὰς διηγήσεις ποιεῖσθαι.

[56] See Pl. *R.* 394d7–e2, 395b8–d4. On Socrates' tendency to shape his discussion with an awareness of the intellectual and social standing of his audience see Burnyeat (1999) 292–4. Similarly Scruton (2009) 54.

If this is so, then we may discern a few consistent features of musical μίμησις throughout these very different dialogues. Always central is the production of an image based on some original model, and usually foregrounded is the depictive or even deceptive nature of that image: musical poems become dangerous when they do not merely create a copy of something, but also attempt (even if only as an artistic conceit) to pass off that copy as the original. We can add to this the observation in the *Cratylus* that musical sound – as distinct from linguistic sound – is that which mimetically reproduces the sound of some other thing. Music, then, can use a human voice, a human body, or an instrument to sound persuasively like something other than what it is – musical performers will not only sound like musical performers, but like something else as well.

It must be this kind of artistic image–making which is to be expunged from the *kallipolis* when Socrates and his interlocutors agree in *Republic* 10 to banish mimetic composition.[57] Even under this astringent regime, 'hymns for the gods and praises for good men' are still to be permitted. These compositions cannot be devoid of every kind of μίμησις discussed so far: we have seen that words themselves ought to be μιμήσεις of that which they denote, and that even everyday objects such as tables are μιμήσεις of Forms. Presumably we do not want a *kallipolis* without tables, so Plato must be attempting here to forbid a less sweeping kind of μίμησις. Somehow hymns – though they contain language, melody, and rhythm – are in Socrates' mind safely denuded of the deceptive representational μίμησις which a painter accomplishes when he depicts a table. What is at issue, then, is not the general 'likeness–making' involved in the production of a table or the use of language, nor only the direct–speech 'impersonation' which seems to be at stake in Book 3 (since hymns and songs of praise are not the only kind of music which may lack direct speech). Rather, melodised and rhythmic language must become particularly suspect when it not only describes but reproduces or resembles more than just a poet singing. Songs must be able to accomplish some 'depictive' μίμησις much like that involved in painting: they must be able not only to describe their subject in nakedly propositional language (as Plato seems to imagine hymns do) but also to present that subject in an artistic, representational depiction.

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[57] That is, to banish all ποίησις which is μιμητική: Pl. *R.* 595a1–5.

b. What, then, do songs depict?

We are now narrowing in on the category of likeness–making which seems to be involved in music of the emotionally affective kind that Plato thinks must be banned from, or at least carefully watched over within, the *kallipolis*. We saw in the *Cratylus* that music is something which sounds like something else. This makes it mimetic in a broad sense: it reproduces some original using the human voice, the human body, or an instrument. But one of the facts which worry Plato is that the kind of sonic resemblance which music contains may also be mimetic in the sense I have called 'artistic' or 'representational' and which might in the *Sophist* be called φανταστική: songs can use sounds not only to imitate, but also to depict or represent, some original thing which they convey to the soul via the senses. This is a kind of depiction which must happen alongside or in addition to the mimetic communication involved in language. The words of a song, like all words, contain sounds that resemble and so communicate ideas: if I sing the words, 'nobody knows the trouble I've seen,' I am telling you a fact about my life which you can understand because the essences of the entities involved in that fact are represented in my syllables. But I am also painting you a kind of sound–picture, making my words and their tonal shifts sound like something other than themselves. The kind of art which Plato thinks exerts a dangerous power over the emotions is the music which creates such a representation in the medium of rhythm, tone, and diction: artistic musical μίμησις uses sound not only to communicate ideas but to resemble and so represent things. But just what is it that is being represented? We need now to ask about the proper object of musical depiction in Plato.

Broadly speaking, Plato has at least two ways of talking about how music relates to that which it is like. The more accessible of these is the one most clearly under discussion in *Republic* 3. Here Plato seems in some way to be making use of the ἦθος theories developed by Damon of Oa. Since little is known about Damon, it is difficult to say exactly what his own ideas were, and the degree to which Plato accepts them in the *Republic*. The most likely reading, though, is that of Lynch (2013). On this interpretation Damon made empirical discoveries correlating certain features of harmonic and rhythmic structure with certain patterns of behavior. Plato, meanwhile, had his own original ideology of musical representation and its role in ethical training, for which he simply cited Damon's empirical authority to fill in the technical blanks.[58] Thus for example at the end of 398d4–400c6, when Socrates suggests enlisting Damon to help determine what ethical qualities are attributed to the various rhythms, he means simply to defer to Damon's expert structural analysis in delineating which rhythms are available for use in ethical pedagogy. It is not Damon's opinion on which types of character are laudable and how each rhythm cultivates or corrupts them that interests Plato's Socrates, who has his own very definite ideas on those subjects. I am also of the view held by Else *contra* Koller, that the mimetic theory of ethical music is largely or entirely Plato's own, superimposed onto Damon's more observational research.[59]

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[58] Cf. West (1992) 248–9; Brancacci (2008) 88–9. For speculation about Damon's own ideological project, see Comotti (1991) 32–4; West (1992) 246–7; Brancacci (2008) 9–10, 23–8; Wallace (2004), (2015) 64–75 with *R*. 424c3–6.

[59] See Koller (1954) 19–25 refuted by Else (1958) 73–87; cf. Wallace (2015) 31–2, 81–2 n. 5. On the pre–Platonic background of μίμησις and the innovative aspects of Plato's μίμησις terminology see Halliwell (1986) 109–21.

What we can say with most confidence about Damon is that he observed and schematised the interrelations between human behaviour and the auditory effects of ἁρμονία and ῥυθμός.

But Plato's μίμησις theory had a much broader idea of music in view.[60] Plato was concerned with a compositional and performative art which included language, rhythm, and melody, all of which worked together to represent, at least in the *Republic*, the discourse and self–expression of men in various kinds of action.[61] In depicting Chryses, for example, Homer not only says the words that Chryses would say, but also uses musical composition that reflects the inflectional and rhythmic patterns of the priest's speech. Thus the proper ἁρμονία 'would resemble the tones and utterances' (μιμήσαιτο φθόγγους τε καὶ προσῳδίας) of a particular kind of man acting in a characteristic way.[62] This is how λόγος, ἁρμονία, and ῥυθμός work together to make manifest a certain kind of comportment which is indicative of a psychological state such as anger or self–restraint. All three elements contribute to the same picture (as suggested at 398c11–d1), but in different ways – the language tells us what the character is thinking by representing the essence of his thoughts in syllables, but the music tells us how he would sound when expressing those thoughts because its melody and rhythm resembles the cadences and tones of his speaking voice.

There is some uncertainty as to how stylised an imitation of human speech Plato has in mind. It has been suggested that Plato's epistemological worries about artistic μίμησις led him to eschew all creative license and imagine a music which aimed for as literalist a recreation of the object depicted as possible.[63] There is some tenuous support for this view if Plato is to be taken literally in the *Republic* when he compares art to a mirror.[64] But Daniel Babut (1985) 82–7 makes a clear case that it is not the physical accuracy of a reproduction which determines its merit for Plato. Babut is surely right that Plato was not so unsophisticated as to conceive of poetry as a purely mechanical reproduction: '*il n'[est] pas plausible d'imputer à un auteur comme Platon tant de naïveté ou tant de mauvaise foi*.' Halliwell (2002) 45–7 also points to clear indications that the *Cratylus* 'rejects the need for mimesis to justify itself in terms of replicatory fidelity.'[65] Indeed, throughout the dialogues the notion of μίμησις is such as to preclude even the possibility of literal reproduction. We have already seen that the critique of μίμησις in *Republic* 10 hinges upon the distance between, for example, a picture of a table and the actual Form of a table. The point is that something is lost at both stages of imitation – the craftsman, as well as the artist, can only approximate the transcendent Form which serves as his model.[66] Moreover, the *Cratylus* suggests that literal reproduction is an act of creation, not μίμησις. To make an exact physical copy of, e.g., Westminster Cathedral, is not to make an image but to make a second Westminster Cathedral. Therefore, Socrates concludes, 'we must search for another kind of correctness in images' besides exact physical identity.[67] It is not too much to say that the concept of μίμησις, however else it may vary throughout Plato's corpus, never involves actual exact reproduction: ultimately all craftsmen derive their imitations from some original abstract Form which can be only imperfectly captured in matter.[68] This implies that even meticulous realism in art entails a degree of stylisation, since it can only ever present a particular vision or depiction of the full truth or reality as constituted by the Forms.

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[60] Ἦθος theory is expressly figured in terms of μίμησις at Pl. *R.* 398d4–400c6, and this model is adopted in Arist. *Pol.* 1342a12–b34. But the two were not inextricably linked: for a survey of musical ἦθος and its pedagogical value that does not depend on reference to μίμησις, see Ath. 623e3–8f7. For careful attempts to distinguish between Plato's views and those of Damon, see West (1992) 246–9; Barker (1984–9) 1.168–9, (2007) 47 with n. 18, 72–3; Wallace (2015) 32–43. Wallace goes too far in suggesting that Damon made no general connections between ἁρμονίαι and ἤθη. But he does issue the salutary reminder that Damon probably assessed a musical composition's emotional character based on a complex interrelation of various stylistic and formal features. Cf. Thorp (1991) 60.

[61] See *R.* 396c6, 603c4–8; Belfiore (2006) 105–6.

[62] Pl. *R.* 399a5–8.

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[63] See e.g. Huber–Abrahamowicz (1954) 49; Lucas (1968) 258–61.

[64] *R.* 596d8–e11. Such a literal reading seems to be implied by Cain (2012) 190 ('the only thing a painter can do when he paints is copy the visual appearances of an artifact'). But see Halliwell (2002) 118–47.

[65] Cf. Halliwell (2002) 58–9, and see especially *Cra*. 432a8–d4: 'don't you see how far images are from having the same properties as those things of which they are images?' (οὐκ αἰσθάνῃ ὅσου ἐνδέουσιν αἱ εἰκόνες τὰ αὐτὰ ἔχειν ἐκείνοις ὧν εἰκόνες εἰσίν;)

[66] See especially 596b6–11, 597a1–3.

[67] *Cra.* 432c7–d3: ἄλλην χρὴ εἰκόνος ὀρθότητα ζητεῖν.

So Plato, who saw even the physical world as an artificial and representative construct, can hardly have imagined that a piece of music would be a literal reproduction of human speech. Such a recitation would in fact not be music at all. Although the Socrates of the *Republic* recommends that the λόγος of a song be the same as if it were not sung, the very need for that stipulation suggests that the addition of ἁρμονίαι and ῥυθμοί makes for some qualitative difference in the sound of the utterance, such that it has to be specified that λόγος, meaning, should be preserved.[69] Thus Plato seems to be envisaging a melodic and rhythmic arrangement which represents, but does not literally reproduce, the speech patterns of a particular kind of person. We can imagine this playing out in the ἁρμονίαι which Glaucon, perhaps referring to Damon's expertise, helps Socrates assign to various psychological states and conditions. Using some of Barker's (1982) 194–195 tentative reconstructions from Aristides Quintilianus, we could, for example, speculate that the moderate pitch and fairly regular intervals of the Dorian mode seemed to mimick the steady, measured tones 'of someone who encounters fate steadily and stoutly.'[70] By contrast, perhaps the high–pitched and irregular Mixolydian suggested the frenetic wailing of a mourning widow.[71] In any case, we can be fairly sure that what we are dealing with is a stylised artistic representation of speech patterns translated into the shape of a melodic contour.

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[68] Cf. Halliwell (1986) 116–21, (2002) 70–71 with Pl. *Crit.* 107a6–b7.

[69] Pl. *R.* 398d4–6.

[70] Pl. *R.* 399b2–3: παρατεταγμένως καὶ καρτερούντως ἀμυνομένου τὴν τύχην. For further speculation about the actual structures of the ἁρμονίαι and the authenticity of Aristides' record see Mountford (1923) 126–9; Winnington–Ingram (1936) 21–30; West (1981) 177, (1992) 174; Barker (1984–9) 1.165–6.

Alongside this fairly concrete mimetic project, we have also to contend with a more abstract kind of musical resemblance which is most fulsomely described in the *Timaeus*. Central to this dialogue is the idea that our souls contain within them microcosmic images of the universe, so that our psychological 'motions,' when we are at our best, approximate the ordered and proportional movements of the heavens.[72] This is because the heavens themselves are pervaded by a single animating spirit (a 'cosmic soul' or 'all–soul'), governed by the rational plan of a creative consciousness, and perpetually expressive of a universal λόγος which communicates the rational order of the all–soul and is 'borne without voice or sound.'[73] The ordered motions involved in melody ('movement' back and forth along the scale) and rhythm ('movement' in time) may reproduce in sound the movements dictated by the soundless λόγος of the all–soul to the planets and to individual human souls.[74] Because music is sensory input, it is more directly perceptible to an embodied human consciousness than the purely noetic emanations of the universal soul itself. At 47c7–e2, Timaeus contends that music helps us to realign the motions of our soul with those of the cosmos, because it

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[71] Pl. *R*. 398c1–401a8. I owe these suggestions to Dr Tosca Lynch (personal communication). See further Folch (2016) 91 on *Lg*. 655a8–b6.
[72] See esp. *Tim*. 42e5–44d2 with Robinson (1995) 75–92; Myers (2018) 68. The idea that our souls may exhibit in miniature structures which can be mapped out on a grander scale, such as in the κόσμος or the πόλις, is also central to the *Republic* (see esp. *R* 440e1–44a7; cf. Lynch (2017) 22–4).
[73] Pl. *Tim*. 36e5–7b6: φερόμενος ἄνευ φθόγγου καὶ ἠχῆς.
[74] The notion that the connection between a piece of music and an emotional experience has somehow to do with various analogous motions — of melodies, souls, dancers, etc. — is widespread in ancient and modern aesthetics. On the ancient concept see now Raffa (2018) 9, 20–21. A cogent defense of the existence, and description of the nature, of such motion in melody is Scruton (2009) 43–8, against Budd (2003). A striking application of the idea occurs when, exploring the notion of musical 'gesture' and expression in his personal notes, Wittgenstein (1980) 51–2 cites a section of music using only a linear shape.

‘has movements akin to the revolutions of the soul within us.’[75] The idea is that well–tuned melodies and well–proportioned rhythms reproduce or approximate the motion prescribed by the cosmos’ universal soul.[76] So when such melodies and rhythms make contact with our individual souls through the faculty of hearing, they push our own psychic movements back towards an approximation of the correctly ordered cosmic motion. Of course, if well–constructed music moves in an orderly fashion like the cosmic soul, poorly–constructed music will move in a disorderly fashion and so push the listener’s soul out of line with the all–soul and its ordered λόγος.[77]

This cosmic musical motion is rationally ordered, but it does not only affect the rational parts of our soul.[78] It is true that our noetic faculties are those with which we consciously perceive order and harmony, and that the *Timaeus*, following on from the *Republic*, distinguishes between those faculties and our irrational desiderative impulses. But those latter impulses, too, can be properly managed and arranged according to the structural principles of the λόγος and indeed were intended by the creator god to be so arranged. Originally, says Timaeus, the material world was chaotic and irrational.[79] But ‘the god invested proportion in each thing in relation to itself and all to one another, according to the manner and kind of proportion and measure for which each had the potential.’[80] Out of this newly ordered material he gave shape to the universe as governed by its cosmic soul, and we read at *Tim*. 36d7–7c5 that 'the entire composition of the universal soul' (πᾶσα ἡ τῆς ψυχῆς σύστασις) was arranged according to the intellect of the creative consciousness (κατὰ νοῦν). The whole of the material universe (πᾶν τὸ σωματοειδές) was built 'within' (ἐντός) that soul, and all of the parts of the universe, whether corporeal or noetic, fall under the aegis of its governing logic. It is this entire soul, without qualification, which is referred to as 'sharing in logic and harmony' (λογισμοῦ . . . μετέχουσα καὶ ἁρμονίας). That logic and that harmony dictate the right relations of all physical and mental things to one another. Consequently, although we understand music's structure cognitively, that structure is not only capable of rectifying our rational soul. Rather, musical motion can rejigger the entire arrangement of our desires, impulses, and logical thoughts, all of which were meant to be organised according to principles inherent in the universal soul. That the irrational parts of the soul will, in their proper movements, be guided and governed by the rational part, is not to say that the rational part is the only one affected by the all–soul's λόγος. It is simply to say that our rational soul is the conscious faculty whereby we eventually take personal ownership over the λόγος which ought to guide our entire psychological mechanism. Indeed, for Plato, music is even capable of guiding the motions in a listener's soul before that listener is fully capable of rational analysis – that is, music can work upon our irrational souls and make them well–disposed to the guidance of reason before we ourselves are capable of exerting such guidance upon them.[81]

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[75] Timaeus describes music as συγγενεῖς ἔχουσα φορὰς ταῖς ἐν ἡμῖν τῆς ψυχῆς περιόδοις.

[76] As Pelosi (2010) 81–2 points out, there is a similar idea of cosmic realignment behind the edifying uses of astronomy and music envisaged at Pl. *R.* 527d1–31c8.

[77] Of course, some influence from Pythagoreanism is readily apparent here. The connection between the musical and cosmic realm via numerical proportion certainly belongs to Pythagoras’ followers, who may also have drawn some links between these ideas and preexisting ones about music’s effects on psychology and behaviour. See Boyancé (1936) 173–9; Segal (1962) 141 n. 40; Lippman (1964) 93–4; Burkert (1972) 376 with n. 30; Barker (1984–9) 2.54; West (1992) 31; Pelosi (2010) 66 with n. 104, 73 n. 7; Zhmud (2012) 286–9; Barker (2014) 190–1; Palmer (2014) 214–26; Wallace (2015) 195–8 with Iamblichus *VP* XV 65–6, 110–14; S.E. *M.* 6.7.1–9.1; Pl. *R.* 530d6–10; Arist. *De Caelo* 290b.

[78] *Contra* Pelosi (2010) 67.

[79] Pl. *Tim*. 30a2–6.

[80] *Tim*. 69b2–c3: ὁ θεὸς ἐν ἑκάστῳ τε αὑτῷ πρὸς αὑτὸ καὶ πρὸς ἄλληλα συμμετρίας ἐνεποίησεν, ὅσας τε καὶ ὅπῃ δυνατὸν ἦν ἀνάλογα καὶ σύμμετρα εἶναι.

Precisely how this spiritual alignment would have been figured depends upon how the parts of the soul were imagined interacting and what the nature of those parts was. This differed from dialogue to dialogue over the course of Plato's career.[82] There has been some disagreement as to whether the differences amount to an essential change in the structure of the soul according to Plato, or whether they are more like disparate ways of talking metaphorically about the same thing. In particular some scholars, notably Christopher Bobonich in recent years, have contended that the spirited and appetitive parts of the *Republic*'s tripartite soul, and the two horses guided by a charioteer in the *Phaedrus*, have been discarded in the *Laws*, leaving us with a single psychological subject acted upon by his πάθη, affections such as pleasure and pain.[83] For Maria Sassi it is the spirited part only which has disappeared – the self–assertive agent that is the θυμοειδές in the *Republic* has become simply the impulse to self–assertion, θυμός.[84] Others, recently Joshua Wilburn, have maintained that the *Republic*'s three parts remain distinct and intact, although not explicitly mentioned, throughout the *Laws*.[85] What is important for our purposes, however, is that which these various Platonic metaphors for the soul all have in common. Consistently in Plato, reason and the rational element of the soul (λογισμός, τὸ λογιστικόν) occupy a distinct and privileged place in a person's psychological structure. Even if there is only a singular subject in the *Laws* as Bobonich argues, that subject is still meant to let his whole self and all his actions be guided by the special pull of reason (ἡ τοῦ λογισμοῦ ἀγωγή).[86] Moreover, as both Wilburn and Sassi emphasise, it is always education, with its significant musical component, that brings the non–rational elements of the soul under the command of the rational.[87] This process may happen via coercive subjection of the non–rational elements, as in the *Republic* and *Phaedrus*, or via those elements' habituation to and eventual collaboration with the demands of reason, as in the *Laws*.[88] But whichever of these is the case, when Plato turns to discuss the universal structure of λόγος, it is clear that every psychological apparatus, from basic appetites to rational thought, is ultimately intended to be wholly arranged according to the principles of reason as manifested in the divine cosmic sphere. We have already seen that the entire universal soul partakes of reason and harmony in the *Timaeus*, and that our universe exists within the ambit of that soul's ordered structure. But in the *Phaedrus*, too, the ordered governance of our soul approximates the perfected order of divine souls until eventually our baser elements fall in line with that order as well.[89] This is why the resemblance of cosmic motions in musical sound has such a powerful pedagogical effect: it can bring the whole soul into alignment with its rightful structure as dictated by the cosmic λόγος.

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[81] See *Lg*. 653a5–4a7, 790d5–e4. *Tim*. 42e6–4c4, 47d2–e2.

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[82] See especially Pl. *R*. 441e4–7; *Phdr*. 246a3–47c2. The literature on this subject is extensive. Many of the controversies surrounding Plato's tripartite soul must go unexplored here, but for useful surveys see especially Burnyeat (2006) 1–22; Singpurwalla (2010) 880–92, (2013) 41–51.

[83] See Bobonich (2002) 261–7, 331–4: 'we find here desires . . . , but not the Appetitive part; we find spirited emotions, but not the Spirited part.' See further Annas (1982) 8–9; Robinson (1995) 119–25.

[84] See Sassi (2008) 128–38.

[85] Wilburn (2013) 63–72; see also Saunders (1962) 37–55.

[86] Pl. *Lg*. 644d7–5b1; cf. *R*. 437b7–41c3; *Phdr*. 246a3–b3, 253c7–4c5.

This analysis lets us square the *Timaeus*' abstract kinetic 'kinship' between harmonic structure and cosmic motion with the ethical μίμησις of real–world individuals in *Republic* 3. The two ideas are not always considered to be as intimately related as they in fact must be.[90] For Pelosi (2010) 66–7, the cosmic motion of harmony goes beyond its representational function and is simply a feature of its ontological structure. Barker (1984–9) 2.53 writes that the audible motions of music should be regarded not as images of human character but 'as "diagrams" or perceptual aids, from which the mind can be led to a grasp on the intelligible mathematical principles that perceptible movements may imperfectly exhibit.'[91] Both of these views are accurate insofar as they emphasise that Plato's cosmological ideas about harmony point beyond the more quotidian representation and enactment involved in epic or theatre music. When he discusses the music of the spheres Plato attempts to elucidate the underlying mechanism whereby harmony and rhythm express deep, abstract realities about the universe's composition. But this kind of cosmic expression is not unrelated to the representational depiction which music as it is normally consumed and performed accomplishes. Rather, ethical μίμησις is made theoretically possible by the Pythagorean idea that harmonised music embodies a fundamental mathematical structure which undergirds the whole universe.[92] Laudable music represents the ordered motions of the heavens, as carried out within the actions of a virtuous human soul.[93] It thus affords wise listeners a deep satisfaction 'on account of the imitation (μίμησις) of the divine harmony manifested in mortal movements.'[94] Therefore when we hear musical melody which sounds like the cadences of a

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[87] See Wilburn (2013) 72–82; Sassi (2008) 138–47.
[88] See Folch (2016) 83–4 on Pl. *Lg*. 653a5–c4.
[89] See Pl. *Phdr.* 254e5–9.
[90] But see Petraki (2008) 159–65.
[91] Similarly Gülgönen (2014) 104: '*Enfin, dans le Timée, le rythme et l'harmonie (entendue dans le sens large d'intervalles consonants) imitent non pas des caractères psychologiques*

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humains, mais l'âme divine.' Perhaps this impulse to distinguish music's mathematical properties from its expressive ones can be attributed in part to the fact that theories of musical expressivism in the early modern period did indeed emerge in contradistinction to an emphasis on cosmic and mathematical harmony – Kirkendale (1979) esp. 1–2 with n. 2, 30–2 speaks of music 'loosening its medieval bond with the mathematical disciplines of the quadrivium' and becoming 'more and more aligned with the trivium.' Cf. Kirkendale (1980) 110–37; Kirkendale (1997) 333–4; Panalotidi (2014) 398–9.

[92] Similarly Lippman (1964) 90–92; Woerther (2008) 94. It has been suggested that ἦθος theory was itself Pythagorean in origin, although the links which Damon observed between musical and ethical characteristics were probably by and large his own — see Burkert (1972) 291 n. 65; Lord (1982) 207–8 n. 12; West (1992) 247 with n. 83; Wallace (2015) 194–200. Σ Pl. *Alc*. I.118c (= p. 95 Greene) draws a link between Damon and the allegedly Pythagorean aulete Pythoclides, but Burkert and Wallace are right that this is too distant and spurious a connection to justify ascribing Pythagorean origins to Damonian ἦθος (*contra* e.g. Abert (1899) 5–9, (1926) 6–7; Howald (1919) 198–207; Busse (1928) 38; Anderson (1966) 38 — but see 278 n. 12).

[93] For parallels to this model in Jewish theology, also apparently derived from Pythagoreanism, see Philo *Op. Mund*. 25.78, *Virt*. 11.72–5; Nicomachus, *Enchiridion* 3.241–2; Ferguson (2003) 413–17.

[94] Pl. *Tim*. 80b6–8: διὰ τὴν τῆς θείας ἁρμονίας μίμησιν ἐν θνηταῖς γενομένην φοραῖς. Cf. *Tim*. 90c6–d7 with Taylor (1928) 634, and see further Halliwell (1986) 118; Petraki (2008) 157–65; Renaut (2017) esp. 154–5. This microcosmic reproduction, via music, of cosmic order, is a driving theme elsewhere in Greek literary thought — see e.g. Pi. *P*. 1.1–4 with Skulsky (1975) 8–9.

temperate or courageous man, we are hearing a stylised representation of the way a voice moves when the soul which generates it is rightly ordered.[95] But the rightness of that ordering itself is dictated by the same universal λόγος which underlies good musical structure and so determines how both souls and melodies ought rightly to move. Likewise a frenetic or disordered melody will communicate to us the movements of a soul whose emotional state is contemptible precisely because it does not conform to the universal cosmic order that guides souls, planets, and melodies alike in the right kinds of movement.

III. Reconciling Radial and Decorative Music

a. Composition

We are now in a position to consider the decorative and radial interpretations more carefully. It has become apparent that songs for Plato do orbit around what Pelosi (2010) 71 calls an 'intelligible nucleus' – some noetic content which cannot be exactly manifested in the material world but which all elements of a sung poem should convey. That view is supported by the fact that the λόγος of the all–soul, which musical sound at its best expresses, is itself soundless.[96] This suggests a system in which λέξις, ἁρμονία, and ῥυθμός might all contribute equally though in different ways to the μίμησις of some ultimately ineffable λόγος.[97] But against this radial system there is the fact that language does seem to bear a special connection, which melody and rhythm do not share, to λόγος. To begin with, the word λόγος in Plato usually does involve spoken language.[98] In the *Cratylus* language alone, as expressly distinct from musical sound, can present some essential aspect of its referent to the mind. Moreover the introduction of ἁρμονία in *Republic* 3 (398c1–d10) does treat musical sound as a secondary concern (τὸ περὶ ᾠδῆς τρόπου καὶ μελῶν λοιπόν), addressed after a linguistic composition which itself ‘differs in no way whatsoever from speech that is not sung’ (Οὐδὲν δήπου διαφέρει τοῦ μὴ ᾀδομένου λόγου). All of this might suggest that the words of a poem are in fact its central communicative mechanism onto which melody and rhythm are to be added decoratively.

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[95] See further Norden (1928), (1974) 55; Porter (2004) 133; and cf. Thphr. *apud* Porphyry (= fr. 716 Fortenbaugh) with Barker (2004) 101–2 — Theophrastus' idea that the soul makes audible its internal κίνησις by singing a melody likely comes to him from Plato via Aristotle. Prauscello (2014) 126 points out *contra* Peponi (2009) 59 that at *Lg*. 816a3–6 the motions of dance, too, are natural outgrowths of vocalised poetic performance.

[96] See above, pp. 33–4 with n. 73 on Pl. *Tim.* 36e5–7b6.

[97] For an interpretation along these lines see Brancacci (2008) 91–3.

[98] See Ademollo (2011) 347–50 on *Crat*. 431b3–c3.

The best way to obtain a nuanced reading of musical expression in Plato is not to eschew one of these two interpretations but to reconcile them. This can be done with two observations, the first of which is implied in what has already been said about the *Cratylus.* It is true that in this dialogue language is by definition that which mimetically embodies οὐσία, whereas music only imitates φωνή. Yet the means whereby words convey essence necessarily involves sound. Because the οὐσία of a word’s referent is encoded into the structure of its syllables, there is ideally a close link between the sound of an utterance and its semantic content. There are indications that this includes accentuation: for example, the process of creating the word ἄνθρωπος involved dropping the circumflex from the verb ἀναθρεῖ.[99] Socrates’ comments on vowel length are more complicated, because the length of time spent pronouncing a letter does not in itself seem to affect that letter’s mimetic properties for Socrates. Even letters which denote rapidity (such as ρ) do so via the agitated motion of the tongue rather than by the lengthy or short duration of that motion.[100] But each vowel has its own mimetic properties, and the meaning of a primary name is often determined by the choice of vowel.[101] Thus the lengths of the vowels in a word, although not themselves constitutive of meaning, will be tied to and often will directly result from that word's meaning. The point here is not that accent or vowel length is the primary indicator of οὐσία, but that the communication of the οὐσία will prompt the selection of words with certain vowels and accents rather than others. Thus both the rhythmic and tonal profile of an utterance will be at least partially consequent upon that utterance's meaning. The phonic features of speech which musical sound imitates for Plato will themselves be linked, albeit indirectly, to the referents denoted by that speech.

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[99] See Pl. *Cra*. 399a6–c6.

[100] Pl. *Cra*. 426e3–6. We may note here in passing that, strictly speaking, Socrates in the *Cratylus* is propounding a system not of aural but of ‘articulatory’ μίμησις (using Belardi’s (1985) language). The direct resemblance is not between sound and meaning but between the meaning and the act of forming the lexical sound. However, as Ademollo (2011) 310 points out, the sound of the word is an epiphenomenon consequent upon this articulatory process. From the perspective of a listening audience, therefore, the disjunct between articulatory and

All this can give us an idea of what is meant when, at *R.* 397b6–c2, Plato's Socrates imagines that a poet might choose 'a rhythm and ἁρμονία befitting (a given speaker's) λέξις' (πρέπουσαν ἁρμονίαν καὶ ῥυθμὸν τῇ λέξει). On the Platonic model, the speaker being depicted will have chosen words to express what he thinks about the situation in which he finds himself. The syllables of the language he uses to do so will be mimetic of the essential nature of what he is describing, as he apprehends it. But because of this fact, his thoughts will also give rise to certain rhythmic and tonal patterns in his speech rather than others. Those patterns in turn will mirror the movements and proportions that are taking shape within his soul as a result of his emotional disposition towards the situation he is encountering. For a traditionalist like Plato, a good poet should write music that follows the rhythmic and tonal outline of the character's words as they would be delivered if spoken normally rather than sung.[102] If the poet does so, his music will give a powerful artistic rendering of his character's

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aural μίμησις is a distinction without a difference, since the sounds of words will remain indicative of meaning and indeed will be the primary means of getting meaning across. See further Belardi (1985) 31–43; Baxter (1992) 62–4; Ademollo (2011) 308–9.

[101] Pl. *Cra.* 426e6–7c6. Cf. 398c6–e3 where the lengthening of a short vowel (from ἔρως to ἥρως) changes the meaning of a word.

[102] Cf. Pl. *R.* 401a5–9.

emotional state. This in turn can help us to make sense of an important passage in the *Republic* (400d1–7):

> Ἀλλὰ μὴν τὸ εὔρυθμόν γε καὶ τὸ ἄρρυθμον τὸ μὲν τῇ καλῇ λέξει ἕπεται ὁμοιούμενον, τὸ δὲ τῇ ἐναντίᾳ, καὶ τὸ εὐάρμοστον καὶ ἀνάρμοστον ὡσαύτως, εἴπερ ῥυθμός γε καὶ ἁρμονία λόγῳ, ὥσπερ ἄρτι ἐλέγετο, ἀλλὰ μὴ λόγος τούτοις. . . . Τί δ’ ὁ τρόπος τῆς λέξεως, ἦν δ’ ἐγώ, καὶ ὁ λόγος; οὐ τῷ τῆς ψυχῆς ἤθει ἕπεται;
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> But indeed good and bad rhythm follow beautiful diction and its opposite, respectively, being assimilated to them, and so too good and bad tuning, if the rhythm and tuning are to follow the speech, as I just said, and not vice versa. . . . And what about the kind of diction, and the speech? Does it not follow the character of the soul?

This passage maintains the close link between λέξις and λόγος, suggesting that the psychological profile of the character which a poem imitates will be made manifest in its verbal language. And the phonetic makeup of that language will determine the rhythmic and melodic path it follows. The perverse practice which Socrates disdains is picking a wordless tune and then coming up with whatever words fit it best, regardless of what they mean. But the compositional process he advocates is not the reverse extreme, in which a poet writes an essentially tuneless speech and then arbitrarily picks a ditty to go with it. Rather, the character which the poet chooses to depict will be the source wherefrom he derives a complete and unified sonic composition, whose sounds, though primarily dictated by the exigencies of linguistic expression, constitute a unitary complex of melody, rhythm, and diction. All three of those elements work together to accomplish the musico–poetical and mimetic depiction of a single entity.

b. Audience reception

So much for the question of how melody and rhythm come to be invested with content during the poet’s creative process. But there remains the question of how that emotional and characterological content affects the listener.[103] In particular we might ask what musical sound adds to the listener's comprehension or experience of a sung poem's content, and whether melody and rhythm are in the end superfluous in the communication between poet and audience. The idea that words tell us what something is, thinks, or does, while melody tells us what it sounds like while so being, thinking, or doing, has the potential to make musical sound little more than an aesthetic flourish which does not contribute to the meaning conveyed. Οὐσία, as we learn from the *Theaetetus*, is a fundamental aspect of reality which the soul contemplates and considers directly, whereas sensory information is mediated through the body.[104] Some of the more polemical passages in *Republic* and *Laws* suggest that the sound of music is nothing other than a vulgar appeal to the appetitive soul.[105] It is by stimulating their audience with the pleasure of variegated melodies (among other things) that the musicians of the *Laws* debase the Athenian theatre and replace wise critical judgment with empty aesthetic hedonism.[106] Moreover, in the *Timaeus*, it is the ἄφρονες, the witless, who react to beautiful melodies with purely sensory pleasure, ἡδονή. The true satisfaction, (εὐφροσύνη) which those who really understand music enjoy is predicated upon their knowledge of that music's more substantive noetic content.[107] If such content is best encapsulated in verbal language, what is there left of any importance for melody to convey?

But on closer inspection the *Laws*, understood through the *Timaeus*, gives a more sophisticated picture of melody's role in music's expressive project. I mentioned above (pp.

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[103] Of course, composer, performer, and listener are often (but need not be) one and the same person. I describe the effects of poetry on each person in one capacity at a time, even if in reality that person also fulfils other roles. Thus, for example, the affective change which sung words exert on a performer as he sings them (see below, p. 45) are distinct from the compositional process whereby those words became invested with the power to motivate such change, even if the performer is also the composer who did that investing.

[104] Pl. *Tht*. 185c9–6a4. See also 177c6–e2.

[105] See further Murray (1992) 43–4.

[106] Pl. *Lg*. 700a7–1b3. For a fulsome discussion of the various aesthetic concerns at play in this well–known passage, see Folch (2016) 119–26.

[107] Pl. *Tim*. 80a6–b8.

33–4 with n. 77) Plato's adoption of the Pythagorean musical cosmology in which music's sound makes audible the universe's mathematical underpinnings. We saw, too, that Pythagoras was eventually associated with the therapeutic use of music to restore the soul's original alignment. In the *Laws*, those two ideas come together when Plato outlines his rationale for musical education. The human response to rhythm and harmony is innate and instinctive, the Athenian explains, written into the nature of mankind from birth. Music answers a fundamental urge to move and make harmonious noise.[108] The reason for this may be surmised easily enough from the *Timaeus*, where the creation of humankind necessitates the embodiment of a rational soul whose ordered movements are consequently thrown out of whack by sensory contact with the material world. As sensory and material input, musical sound is the means by which a soul thrown physically out of joint can be set physically back to rights.[109] The consequence of all this is that, though musical sound is of course sensory, it is not without its effects upon the mind. When we hear melodies moving across the scale, our soul is physically compelled to move along with them, and the resultant motion rewires the machinery of our souls. This in turn affects the character and quality of our thought. There seems to be a similar idea behind Socrates' claim in the *Republic* that speaking and moving like men of a certain character will eventually cause our own souls to mold themselves into that character.[110]

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[108] Pl. *Lg*. 653a5–4a8, 790c5–e4.

[109] Pl. *Tim*. 42e6–4c4, 47d2–e2 — cf. Myers (2018) 63–4. For an account of the physical mechanisms whereby music realigns the soul, and a comparison of embodiment theories in *Timaeus* and *Phaedo*, see Pelosi (2010) 68–79 and cf. Brancacci (2008) 82. On the edifying psycho–physical power of gymnastic and musical education in *Laws* and *Timaeus*, see Prauscello (2014) 142–51.

[110] Pl. *R*. 395c3–d4. Similarly Muller (2001) and Gülgönen (2014) esp. 105–7, each of whom offers a version of the (certainly correct) argument that music in Plato is meant to be both mimetic and productive of the psychological structure entailed in ethical and emotional states.

This is why I find Lear's (2011) 205–16 account of psychological change through mimetic musical performance more compelling than the widespread idea that performers consciously try to recreate the internal states of those they imitate.[111] It is true, as Murray (1992) 38–41 points out, that the *Ion* shows poetic performers displaying the emotions of those whom they depict. But in the relevant passage (535b1–c8), Ion claims not consciously to imagine himself into the mind of his characters, but involuntarily to reproduce their emotional experiences. The language he uses is pointedly psychosomatic and suggests that his body and soul are responding automatically to the poem he pronounces, not to his intentional adoption of a certain state of mind. Ion's 'eyes are filled with tears' (δακρύων ἐμπίμπλανταί μου οἱ ὀφθαλμοί) or his 'hair stands on end' (ὀρθαὶ αἱ τρίχες ἵστανται) even though, as Murray emphasises, he does not understand the content of what he is saying.[112] Murray is astute to compare this passage with the assimilation effects of *Republic* 3 (395c3–d4). Yet the suggestion in both dialogues is not of an 'inside–out' adoption of mental states but an 'outside–in' influence, whereby singing with a certain tonality or moving with a certain rhythm will have an involuntary effect on both the momentary and the habitual motions of our soul.[113] It is because these effects work from the outside in that the audience, as Murray also notes, is subject to the same kind of psychological stimulus as the performer – both are forced by the sound of the music into an emotional state mirroring that of the character as encapsulated in the poem's melody and rhythm.[114]

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[111] For arguments that this is Plato's position see e.g. Ferrari (1990) 116–8; Murray (1996) 6. For C.P.E. Bach's adoption of a similar position see Bach (1753).

[112] See further Tigerstedt (1969) 19–20, 25–6; Ferrari (1989) 92–9.

[113] But Adam's (1963) 145 reading that the poet '*becomes*' the character whose speech he utters is too extreme — although poets and listeners may both take on certain qualities of the people depicted, Plato is clear that the actual artistic process is not one of identification but impersonation (hence the comparative 'as if' conjunctions at 393a7, ὥσπερ αὐτὸς ὢν ὁ Χρύσης, and d5–6, ὡς Χρύσης γενόμενος. Cf. 393a5–6). So Marušič (2011) 217, 225–6.

[114] See Murray (1992) 38 with *Ion* 535d8–e3. Cf. Pl. *Smp*. 215e1–3, where Alcibiades describes having a similar reaction upon hearing Socrates' philosophical discourse, which is

This kind of kinetic psychological coercion gives melody and rhythm a vastly important role to play in facilitating a poem's communicative power. True, music 'only' imitates how things sound. But how things sound is more than an accidental feature of their physical makeup. Rather, it is a physicalisation of the spiritual movements which constitute their character. This is most easily exemplified in poetry that depicts a human character, which may be another reason why Plato focusses so much of his discussion in the *Republic* on direct discourse. A man's words may present to our minds the content of his thoughts or actions, and these may give us valuable insight into who he is. But the tone quality and rhythmic patterns of his speech, as stylised in musical form, present our senses with a visceral and direct experience of his inner state.[115]

On one level, then, melody's contribution to musical depiction for Plato is sensory and pre–rational. Musical sound operates by stimulating our physical senses, whereas language communicates directly to our minds. But for this very reason melody attains a direct access to our souls which language cannot achieve, alters our consciousness before language can, and has a more lasting and profound effect on us than language usually does. We may recall here *R.* 411a5–b1, where *aulos* music is said to 'pour into the soul through the ears.'[116] Psychological movements, like οὐσίαι, have no sound of their own.[117] But the movements of melody and rhythm are fundamentally the same kind of thing as the soundless motion of the soul – that is, both are types of κίνησις.[118] As such, a song can compel listeners viscerally to

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compared here to musical performance. Similar effects are described at Plut. *Quest. Conv.* 657a.

[115] This attempt to root musical expression in the inherent expressiveness of the human voice and its emotional modulations has a long afterlife: Batteux (1743) 254–5 makes much the same argument, as does Rousseau (1817). Cf. Neubauer (1986) 100; Monelle (1992) 3–4.

[116] Καταχεῖν τῆς ψυχῆς διὰ τῶν ὤτων. See Burnyeat (1976) 40–41; D'Angour (2015) 191–2.

[117] Cf. Petraki (2008) 162–3.

[118] Here a distinction which Russell (1981) 101 makes between types of μίμησις becomes helpful. A word stands in for what it describes as a phonic marker without being essentially

experience that which its melody and rhythm kinetically resemble. The poet, then, chooses a noetic object of representation and depicts it in language. But that language is an aurally expressive medium on many levels, containing not only phonetic markers of thought but also a rhythmic and tonal structure which outlines the musical path the sung poem will take. Because there is more than one right word for each thing, there are multiple ways of representing the same object in words. This means that there is room for the language chosen by a speaker to vary according to his disposition: a brave man will not describe war in the same language as a coward. That choice of words will not only indicate the speaker's attitude to the minds of his listeners, but also trigger in them a qualitative experience of his psychic state as expressed in the melody and rhythm which best accompany it. Together the whole song constitutes a powerfully expressive artistic representation whose melody, language, and rhythm work together to present the poem's subject to the listener's soul.

Such melodic expression need not be limited to direct discourse, however. There are at least two ways in which μίμησις of non–human objects may be incorporated into Plato's scheme. Halliwell (2002) 131–2 stresses the fact that at *R*. 401a1–2a4 all sorts of things – arts such as weaving, for example, and even the physical bodies of animals – possess measurements and proportions that may conform to or deviate from the ordered proportions which, when manifested in the soul, constitute good character. In other words, any number of objects and entities have proportional measurements and so exhibit quasi–ethical features. The poetic depiction of even inanimate things might be accompanied with rhythmic and melodic compositions to produce in the listener a felt experience of their ethical elegance or ugliness. Moreover, all poetry, filtered as it is through a human consciousness, can project some internal response onto that which it depicts. Even a descriptive passage such as the

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the same kind of thing as its referent's οὐσία. But the movements of music actually are, in some sense, the same kind of movements as those which characterise the thing depicted. See further Ledda (1990) 19 n. 36; Marušič (2011) 222–3; cf. Sedley (2003a) 85.

opening of the song at Ath. *Deip*. 360c2–21 (= *PMG* 848) may be said to convey a certain emotional attitude towards 'the swallow carrying the beautiful weather, the beautiful seasons.'[119] The swallow is not merely a bird, but a bird as seen by a particular individual. There is room in Plato's theory for a talented composer to write a poem whose tonal contours follow the movements of his soul when he sees the swallow. That melody then would then stimulate the same motion in the soul of the listener, prompting a similar internal response (in this case, of gladness or anticipation) to that produced by the thing described.

IV. A Musical Example: Test–driving Plato's semiotics of music

Here, as at the end of every chapter, I will illustrate the representational system that I have attributed to an ancient theorist using material from our extant Greek musical documents. This is analogous to a standard approach in modern work on music semiotics, which often uses excerpts from historical compositions as subjects of analysis in the terms which the author has delineated: once one has said how one thinks music works, or how someone else thinks music works, it is routine practice to demonstrate how an actual piece of music can work in that way. Scholarship on ancient Greek musical philosophy, though, does not usually proceed along these lines. This must in part be because of the technically difficult and uncertain nature of our rather scarce evidence for authentic ancient melodies. Though these difficulties are real, they are not prohibitive: modern research has reached the point of enabling us to reconstruct these tunes with at least as much plausibility as we attain when we reconstruct very fragmentary poetic texts. There as here, the result is not precise certainty but confidence in the validity of our results as general approximations. However, general approximations are all that is needed for the kind of interpretative suggestions I mean to make here. Just as we cannot be certain of Philodemus' exact wording but can trace, with sensitivity and care, the major outlines of his thought, so we cannot say exactly what melody Euripides wrote but can get a sense for its important contours and some of its more striking moments. It is therefore time to begin treating these sources as intertexts for more complete works such as those by Plato: we are able by now to ask what Greek melodies can add to our understanding of the Greek criticism that was written about them.

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[119] Χελιδὼν καλὰς ὥρας ἄγουσα, καλοὺς ἐνιαυτούς.

The benefits of doing so are twofold. For one thing, it will enable us periodically to check scholarly doctrine against real songs and ask whether the former, as interpreted here, could have plausibly emerged in observation and experience of the latter. For another thing, applying ancient philosophical theories to ancient musical documents will assist us in understanding Greek musical art by helping us to interpret it as an educated ancient listener might have done. Philosophy about music is not the same thing as the experience of music, and this dissertation will not enable us to reconstruct 'what it would have been like' for an audience member to hear Euripides or Athenaios performed live. But it will help us to understand a little more about how such an audience member might have described his experience on his own terms, rather than those we invent for ourselves purely on the basis of our experience of the very different music we encounter every day. These musical examples are therefore offered and analysed in order to deepen our understanding both of the semiotic theories which constitute this dissertation's main subject, and of the living musical culture in which those theories emerged.

The line I use here to illustrate Plato's semiotics of music is E. *Or*. 324, from a well–studied choral ode whose tune is preserved on papyrus.[120] Here, the chorus repeat the word καθικετεύομαι. The notation on the papyrus gives us enough to see the basic contours of the melody, and to suspect that at this point the tune was written to follow the pitch–accent, reaching its highest point within the word both times on the acute accent of –τεύ–.[121] Armand D'Angour's recent reconstruction plays out the implications of this suspicion; I have written the supplementary notes he proposes with crossed–out noteheads.[122] Even if this is not exactly how the melody did proceed at this point, we know that the tune of this choral ode did sometimes (although not always, by any means) follow the accent in the strophe.[123] So these two dochmiacs give us all we need for our earliest plausible example of Ancient Greek melody which follows the contours dictated by the pitch–accent – and thus a melody of the kind which Plato may have had in mind.[124]

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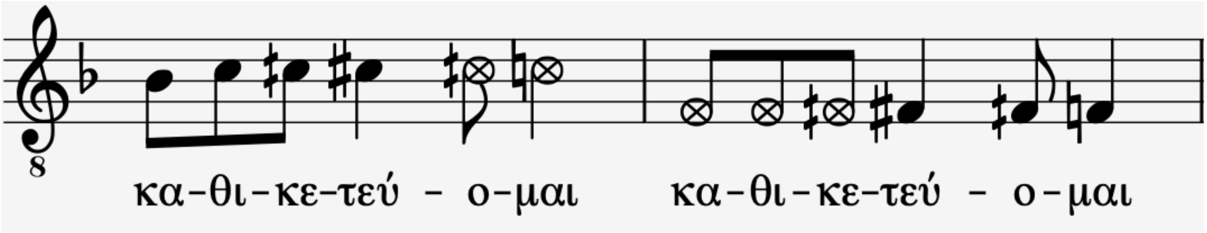
[120] Pap. Vienna G 2315 (= *DAGM* 3). There is not space to describe in full detail the thirty years' worth of technical discoveries which have recently enabled us to read the 'Alypian' notation system, in which the fragments that I use here are written, with unprecedented precision. The reconstructions presented here are my own, but I have relied heavily on West (1992) 218–53 and esp. 199–200; Pöhlmann and West (2001) 5–7; Hagel (2009) 1–52, to which I refer the reader for greater detail.



Ex. 1: E. *Or*. 324 (= Pap. Vienna G 2315; *DAGM* 3)

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[121] See Pöhlmann and West (2001) 16.

[122] See D'Angour (2018b). Here and throughout the dissertation, however, I write at a slightly higher concert pitch (one whole–step higher in our modern terminology) than that employed in performance by D'Angour. The question is a difficult one and cannot be decided with certainty, but D'Angour and I are both in the range indicated by the most recent work on the subject, which analyses both theoretical and material exigencies using the instruments currently extant from archaeological excavation. See Hagel (2009) 68–95 (and cf. West (1992) 273–6; Pöhlmann and West (2001) 7).

[123] See lines 322, 326, and 327.

[124] Quarter tones, the notes 'in between' the white and black keys on our piano, are represented in this thesis using a 'half sharp' sign with only one vertical line (this raises a note's usual pitch by a quarter tone). Not used here but also standard are the backwards flat (which lowers a note's usual pitch by a quarter tone) and the 'double sharp' sign with three vertical lines (which raises a note already sharp by another quarter tone). Here and throughout, I print notes which fill lacunae in the papyrus with note–heads bearing an 'x.' The principles according to which I have done so are essentially those in West (1992) 218–53, refined in personal correspondence with Lynch, Hagel, Barker, and D'Angour.

A critic hearing these lines and informed by Plato's theory could identify at least two kinds of things being expressed at once by these words when sung. The word itself – the letters and syllables of καθικετεύομαι – would communicate to the minds of listeners the fact that the chorus are praying. These syllables have been chosen to make this word because our minds can recognise a correspondence between their phonetic makeup and the notion of prayer, whereby we receive information: these are people asking the goddesses for something. What we do not get from that act of linguistic interpretation is what it is like for those people to make that invocation – the interior state out of which they make their request. But we are able to know about that interior state, indeed to feel it or some intimation of it within our own souls, because of the motion of the melody and the rhythm, which is supposed to mirror the psychological motions being experienced by the characters onstage. The tune moves, or one might say 'creeps along,' in small quarter–tone intervals; it rocks up and down during the first enunciation of the word before falling to repeat a similar motion at a lower pitch during the second. All of this, on a Platonic model, could produce in listeners' souls the sort of ominous internal palpitations which constitute the terror and apprehension out of which the chorus make their prayer. Their souls oscillate in fear; so does the melody; so do our souls as we hear it. From this we derive not only information about the speakers' thoughts but an experience of their feelings, even a nuanced progression from high tension to more ominous anxiety between the two repetitions of the word. Meanwhile the dochmiacs, so reliably associated with agitation and distress, are here resolved into strings of short syllables, which could suggest jumpy and frenetic agitation.[125] The Lydian mode, in which this song is written, is among the 'soft' and 'slack' ones for Plato's Glaucon (*R*. 398e9–10), meaning that the 'atmosphere' or 'general feeling' of the whole piece could be for a Platonic listener one of womanly emotion and weak resolve. All in all we can develop an account in which the melody and rhythm give experiential flavour or coloration to a lexical sign which, in itself, presents a concept but does not allow us the kind of fulsome access to the speaker's inner life that music does.

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[125] See West (1982) 108–9; Raeburn and Thomas (2011) 251.

I am suggesting here a Platonic theory of musical language not unlike the one put forward by Swain (1996) 140–42. Swain argues that both musical sounds and verbal phrases pick out a certain range of possible meanings. The word 'floor,' for example, encompasses a network of ideas including 'the bottom of a structure,' 'a speaker to a deliberative body,' and 'to astonish.' When the word is used in a sentence, other words contract the range of possible interpretations and eventually fix the meaning of 'floor.' Thus the whole sentence 'the floor of the House would not be taken up by the Speaker after all' picks out a different meaning than 'the floor of the house would not be taken up and removed after all.' For Swain, musical sound can do much the same thing. When the chorus of Handel's *Messiah* sings the word 'God,' for instance, they do so on a chord and in a moment of rhythmic time that suggests a particular kind and character of God which is emphasised in this particular utterance. Thus the music serves as a second window of meaning which overlaps with that encircled by the word 'God,' and the semiotic space shared by both of them tells us not only that we are describing God, but also what sort of God we are to imagine (mighty, transcendent, etc.). Like Plato, Swain imagines two planes of meaning – verbal language and melodic sound – intersecting and reciprocally influencing one another so that the two together create one complete act of communication.[126]

But crucially, Swain is reasoning from a spoken language which is not tonal, and as a result his theory allows for a greater range of movement between text and melody. For

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[126] It should be noted that for Plato words themselves, though capable of influencing one another in context, do have their own intrinsic meaning independent of any sentence – the semantic overlap which Swain considers productive of meaning happens for Plato at the syllabic, not the syntactic, level: concepts like 'breezy' or 'rapid' are encapsulated in phonemic sounds and then combined with one another to generate individual words.

Swain, there is no pitch contour or rhythmic structure inherent in words spoken without music, and thus the actual phonetic makeup of a text does not suggest or require one kind of musical setting more than another. One could, hypothetically, set the words of the *Messiah* to the tune of 'Baa Baa Black Sheep' without violating any purely harmonic norms. So for Swain, the associations which make a given setting appropriate or fitting are largely conceptual – music and language are their own separate systems of meaning which may be used collaboratively so that they flesh out one another's communicative content. The choice of melody is limited only by what seems to enhance the meaning of the text, or vice versa. In Plato, the relationship between words and music is more organic because sound and pitch, the constituents of melodic and rhythmic motion, are also the media whereby language signifies.

But precisely because language and melody in a sung poem are both made out of vocal sound, Plato must also find a difference between the way they use that sound to communicate which makes them distinct entities rather than different versions of the same thing. Musical sound for Plato does not stand in for that which it imitates as a token, in the way that words act as tokens for their referents. Rather, the motions of music are what Charles Peirce might have called 'iconic signs.'[127] By this I mean that melodic motions present non–discursive reproductions of emotional structures which the soul encounters directly: there is no 'interpreting' the content that Plato's melodies convey. One simply experiences that content as a kind of qualitative 'coloring' or 'feel' to the meanings which the mind decodes from the syllables. When melody follows pitch–accent, the authentic connection between that musical coloration and the content being described generates what might be called a true depiction of the speaker's thoughts, feelings, and the relationship between them.

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[127] See above, pp. 6–7 with n. 14 and Peirce (1931–58) 1.558, 2.247, 255, 276, 282, 314, 3.556, 4.448, 531; Burks (1949) 673–9; Halliwell (2009) 158–60.

What about when the melody violates the pitch–accent? There are plenty of instances of such violation in the *Orestes* papyrus – it may well have been an almost unavoidable feature of songs exhibiting strophic responsion.[128] We should distinguish this kind of deviation from the kind of characterological mismatch discussed at *Lg*. 669c3–8.[129] Writing a melody to be sung by a male character but using a 'womanish' vocal register, mode, rhythm, etc. is a violation of the order of nature which gives listeners the wrong idea about the kinds of attitude and behaviour appropriate to members of a particular gender, class, age group, or other social category. This is a holistic mismatch between singer and song akin to one noted by a scholiast at *Orestes* 176 (Electra's famous duet with the chorus in which she upbraids them for being too noisy). There the high pitch of the melody is apparently unsuited to the situation, particularly because it does not fit a reprimand – this makes the pitch ἀπίθανος, unpersuasive. But as I have already noted, the mode of the Orestes papyrus is quite appropriate for the kinds of characters being depicted onstage – even if such characters ought not to be represented in the ideal city precisely because they are the sorts of people who would sing in the Lyidan mode.

On Plato's model, what happens when individual words are sung on tunes which disregard their pitch–accent is something else. Such words give us conflicting ideas about the relationship, not between what is said and who is saying it, but between what is said and how those saying it would likely feel about it. Such tonal mismatches probably also privilege aesthetic pleasure over a clear understanding of what is going on: Dionysius of Halicarnassus (*Comp*. 11.88–119) says that music subordinates words to melody for this very reason, because composers pay attention to shaping their tunes without worrying about what the words say. For Plato, a melody written without regard for linguistic structure is mere emotion without reference to rational thought – it expresses feelings, but does not link those feelings to the concepts being articulated. Such emotionalist disregard for internal coherence is one of the charges most frequently leveled against the 5th–century musical innovators to whom Plato so objected and with whom Euripides seems to have had compositional affinities.[130] We might well remember the *Timaeus*: this is the 'irrational pleasure' towards which music was never meant to aim, but which melodies nowadays all seem designed to stimulate.[131] Plato wants a world in which the authentic connections between thought, feeling, action, and verbal expression are mirrored in the links between word, pitch–accent, and melody. In breaking that connection, the 'New Music' makes it possible to write pleasing melodies to go along with all kinds of reprehensible thoughts and activities – a chipper and pleasing tune, say, to accompany a song about infanticide. Someone informed by Plato's theory would have to be deeply worried about the corresponding associations that would form over time in listeners' minds between the emotional tenor of the song's music and the ideas linguistically expressed by its words.

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[128] See Pöhlmann and West (2001) 11.
[129] See above, p. 18 n. 29.

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This Platonic model of musical semiotics is the one which set the stage for the many subsequent discussions on the topic which the proceeding chapters will examine. We will see that when Aristotle undertook to incorporate music into his educational program for state formation via moral habituation of the young, he appealed to Plato's notion of melody as an intuitive communicator of immediate emotional experience. Aristoxenus, though he was inspired by Aristotle to separate questions of technical harmonics from questions of psychological ethics, still saw his technical principles as part of a larger whole which would incorporate melody and rhythm along with words into a unified artistic depiction. When the radical literary theorists known as Euphonists abstracted verbal sound from all meaning, they still found themselves waxing poetic about the modulations of the human voice in terms of an irresistibly affective lexical ‘music’ which could enthrall and inspire passion. Diogenes of Babylon, for his part, did for melodic sound what the Euphonists did for verbal sound, isolating it as an affecting force unto itself with power to direct the development of the listener’s soul – in doing so he was expressly endorsing and elaborating upon Platonic doctrine. And when Philodemus dug in his heels to oppose them all, it was against this vast and varied structure of Platonic inheritance that he formed his own unusual beliefs. Whatever the shortcomings of Plato’s account – many of which will emerge in the pages to come – even those who rejected him could not help developing their views in response to his. In the Hellenic intellectual tradition, at least as it comes down to us, Plato was the father of music semiotics.

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[130] See the criticisms of the dithyramb at *Suda* Δ 1031; Σ Ar. *Av.* 1393 (= p. 241 Dübner), and on New Music's alleged disregard for sense see Csapo (2004) 227–29; Dale (2010–11) 378; LeVen (2014) 150–64.

[131] Pl. *Tim.* 47c6–d7: music is not 'for irrational pleasure, although that's what it seems to be good for these days' (ἐφ' ἡδονὴν ἄλογον καθάπερ νῦν εἶναι δοκεῖ χρήσιμος).

Chapter II

The Great Divorce: Aristotelian Divisions between Sense and Sound

Aristotle’s views on music can be difficult to parse because, like Plato’s, they are not concentrated in any one treatise devoted to the subject. This may be more than simply an accident of transmission: because he accepted the Pythagorean account of harmony as an audible embodiment of numerical abstractions, Aristotle did not consider the study of music a science unto itself but one among several branches of mathematics. He therefore did not think that music was a fitting subject for a standalone treatise which would outline theorems and principles unique to it.[132]

It is therefore easiest to begin describing Aristotle’s views on music by observing the many fundamental premises of mimetic ἦθος theory which Aristotle accepts pretty much wholesale from Plato. The agreements between the two philosophers emerge perhaps most clearly in the eighth book of the *Politics*. There, in the context of a discussion about how to educate citizen boys, Aristotle advocates the use of music as a tool for shaping the characters of the young, because musical sound contains ‘the greatest likenesses (ὁμοιώματα) to the true natures of rage and gentleness, and moreover of bravery and temperance and all their opposites and the other ethical dispositions (τῶν ἄλλων ἠθικῶν).’[133] It is easy to see that this view is almost the same as the one endorsed by Plato in the *Republic*. The major difference between the two philosophers in this area, also often noted, is that Aristotle recognises more uses for music than ethical training and habituation: we may also listen to music to relax, or expurgate unruly impulses, and so Plato's Socrates was wrong to exclude all modes from his ideal state except those fitted to depicting the most virtuous kinds of action.[134] But broadly speaking, Plato and Aristotle agree that at least one important thing music does is convey psychological states: Aristotle says in the same passage from the *Politics* that music has a kind of 'kinship' (συγγένεια) with the soul which makes it uniquely suited to move in patterns resembling those of the soul in its moments of emotional activity.[135]

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[132] Cf. below, pp. 85–6 on Arist. *An. Post.* 75b14–20, 26a9–15, 78b32–9a16.

[133] Arist. *Pol.* 1340a18–21: ἔστι δὲ ὁμοιώματα μάλιστα παρὰ τὰς ἀληθινὰς φύσεις ἐν τοῖς ῥυθμοῖς καὶ τοῖς μέλεσιν ὀργῆς καὶ πραότητος, ἔτι δ’ ἀνδρείας καὶ σωφροσύνης καὶ πάντων τῶν ἐναντίων τούτοις καὶ τῶν ἄλλων ἠθικῶν.

But despite these important points of explicit agreement about music, in his underlying structure of thought Aristotle departs from Plato in several crucial ways which have weighty implications for the study of musical meaning and representation. Many of these departures have been amply recognised, but they have not been discussed together in a musical context and mined for all that they are worth when it comes to tracking the historical development of Greek thought about mimetic song. It may be that the problems which Aristotle's metaphysics and psychology create for the Platonic view of music do not come to a head in the extant Aristotelian corpus because, not having devoted sustained attention directly to music as a subject unto itself, Aristotle could happily accept Plato's conclusions on the topic without probing the problems he had with Plato's premises. Whether or not that is so, the major claim of this chapter is that Aristotle made several key contributions to branches of philosophy which, though not themselves expressly musical, are closely adjacent to the study of music and its capacity to communicate content to its listener. These alterations to Plato changed the terms on which later critics would understand the nature of music in ways that are only latent in Aristotle's own writing. The evidence for this major claim will therefore be not only in the arguments of this chapter about Aristotle's own ideas, but also in those of the subsequent chapters which show those ideas playing out in the work of such thinkers as Aristoxenus of Tarentum, the Hellenistic 'Euphonists,' and even to some extent Diogenes of Babylon. The two areas in which Aristotle's innovations are most consequential for the musical philosophy which followed him are linguistics and psychology. This chapter will therefore proceed to explore these innovations: in order to understand both Aristotle and those who follow him on musical representation, we must understand Aristotle on words and the soul.

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[134] Arist. *Pol.* 1338a9–24, 1341b32–2b6. It is not quite accurate to claim, as Busse (1928) 39–41 does, that Aristotle's departure from Plato consisted in the incorporation of music's hedonic effects. It is closer to the truth to say that whereas Plato refuses to separate the pleasure of music from its proper use in ethical training, Aristotle is able to countenance enjoying lovely musical sound for its own sake. See Peponi (2013) and now Destrée (2018) esp. 195–202 for the thought–provoking suggestion that the music so enjoyed is the same kind of music as that used for ethical training, but appreciated for its pure aesthetic loveliness without reference to the features of it which bear resemblances to ethical states. Such an effort to 'shelve' one's ethical sensitivities in the name of a 'pure' artistic delectation would certainly be the kind of critical compartmentalisation of which Aristotle was perfectly capable, and would provide an interesting precursor to the total separation of musical sound from significatory content which the Euphonists would later undertake on partially Peripatetic grounds (see below, pp. 171–4).

[135] Arist. *Pol.* 1340b17–19. See further Bélis (1986) 54–6 on Arist. *Pol.* 1341b27–33 and Sörbom (1994) 37 on Arist. *Po.* 1447a13–23.

I. Words: Aristotelian semantics and the ramifications of conventionalism

a. Symbols, not resemblances: The Aristotelian distance between words and things

The most fundamental change which Aristotle makes to Plato's semantics is to interpose a *tertium quid* between the signifier and the signified. For Plato, as we have seen, words represent things, and they do so by resembling them: the sound of a word's syllables is a phonic representation of its referent's essence. For Aristotle, by contrast, spoken utterances are 'symbols of conditions in the soul' (ἐν τῇ ψυχῇ παθημάτων σύμβολα).[136] The premise here is fairly simple: when I say ‘Buckingham Palace’ to you, what I am offering you is a ‘token’ that stands in, not for the palace itself, but for my idea of the palace.[137] If the act of communication is successful, you will interpret the token as a sign that I am thinking of Buckingham Palace, and you too will think of the same structure.[138] Aristotle makes clear in *De Interpretatione* and in the *Metaphysics* that the particular sounds and characters used as tokens are conventionally assigned and not universal, decided upon by holders of an agreement or compact (συνθήκη).[139] Crucially, the Stagirite rejects the notion that the letters of the Greek alphabet carry any inherent significance or connection to the ideas they are used to represent.[140] Thus the Platonic notion of a natural link between phonemes and their referents as the root of linguistic meaning will not hold for Aristotle.[141]

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[136] Arist. *Int*. 16a1–4. For my purposes I adopt Belardi's (1981) 79–83 interpretation wherein words for Aristotle can be functionally considered only to represent thoughts. For Ammonius' point that in special cases they may represent things, see Whitaker (1995) 18–25.

On the other hand, the παθήματα τῆς ψυχῆς of which words are tokens are the same for all people, as are the πράγματα of which those παθήματα are ὁμοιώματα. We quite misunderstand Aristotle’s claim here if we assume that by παθήματα the philosopher is referring explicitly to some kind of mental picture or image that I may have of what I am describing, and claiming that every person who encounters a given object has the same such picture of it in his mind as every other person who encounters the same object.[142] Aristotle’s concept of ὁμοιώματα, for which he refers us to the *De Anima*, is more sophisticated than that. What Aristotle means is not a mental visualisation but a kind of change in the soul to take on the form of what it has encountered or perceived.[143] This incorporation into the soul of 'form without matter' is at the heart of Aristotle's idea of how a percipient consciousness takes in stimuli from the world outside it, from sense perception up to rational cognition. When we see a red house, for instance, our eyes make contact not with the house but with the form of the colour red itself. The form of red – here meaning not any separate abstraction of the colour but the essential structure which makes something red rather than blue or green – is present in the house. That form affects the transparent air between the house and our eyes, and thereby reaches the fluid in our eyes so that the formal structure of 'red' is somehow inscribed into it, and redness is thereby manifested to the mind.[144] Thought works in much the same way, as Aristotle himself says.[145] Thus the rational soul encounters not only physical things but also metaphysical ideas and takes on the form of those ideas: when I think about what it is to be round, there is some way in which my mind comes to contain within it the form of 'roundness.'[146]

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[137] Here I follow Crivelli (2009) 82–3. See also Whitaker (1995) 9–13.

[138] See further Arist. *SE* 165a6–8. Written language is nothing more than a token of spoken language, and so the same statements may apply to both.

[139] Arist. *Int.* 16a5–27; *Metaph.* 1093a20–b29; Ross (1906) 132; Reinhardt (2002) 355; Crivelli (2009) 83–4. Cf. *De Sensu* 437a12–7.

[140] Arist. *Metaph.* 1093a22–6. Aristotle’s view that letters result arbitrarily from the shape of the human mouth follows Archinus. See D’Angour (1998–9) 116–8 on Thphr. *ap*. Syr. *in* Arist. *Metaph*. 1093a20–6 (p. 191.24–35 Kroll).

[141] See further Arist. *Int.* 16a27, 17a1 with Whitaker (1995) 19.

[142] So e.g. Ackrill (1963) 113–4.

It is important to note that this process takes place not only when we imagine abstractions such as 'truth' or 'justice,' but even when we say of a thing that it is a bird or a hill rather than simply a splotch of red or green. Beyond the raw data of the senses, all of our perception involves acts of predication – we see not only red, but also that the red has a certain position and is moving about in place and time and in relation to other things, e.g. from branch to branch in a tree.[147] This is what enables us to form an idea of what we see as being a bird, and the whole act of cognition which that idea entails is what is meant by saying that our soul 'takes on the form' of the bird. A πάθημα τῆς ψυχῆς is just that condition in which the soul takes on the form of some object, which to say that it perceives or conceives of that object. Such conceptions may involve visual images, and indeed even our most abstract ideas are more physicalised and pictorial than we usually realise.[148] But ultimately what is being described is not visualisation but ideation, or simply the reception of a concept into the mind.[149] So to say that words refer to παθήματα which resemble πράγματα, and that both are universal, is not to suggest that all men have the same opinion or thoughts about the same things. It is simply to assert that if you and I encounter the same object in the same way, your soul and mine will both respond by taking on that object's form. This fact is necessary if I am to offer you language which, though it bears no natural resemblance to its referent, can not only represent my own private experience but also evoke some analogous experience of yours. What Aristotle is recognising is that people cannot directly transfer their experience of the world to one another – I cannot simply make you see Buckingham Palace by visualising it myself. But we can use conventionally assigned phonetic symbols to evoke in one another experiences which we both have of the same world. Thus when I pronounce the arbitrarily chosen syllables of ‘Buckingham Palace,’ I signify to you that I am thinking about or looking at Buckingham Palace, and you understand my meaning because you also have an idea or experience of Buckingham Palace which my utterance calls to mind.

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[143] See Sörbom (1994) 38; Whitaker (1995) 15. Even a cognitive 'appearance' (a φαντασία) need not be literally visual in Aristotle but is rather any kind of 'manifestation' or 'presentation' of a sense–object to the mind: see Dilman and Ishiguro (1967); Scruton (1974) 91–120; *contra* Ross (1923) 123–4; Schofield (1992) 249–53 with n. 8 on *De An*. 427b26–9a9.

[144] *De An*. 418a3–19a21, and so, *mutatis mutandis*, for the other organs of perception. This does not mean that the eye becomes red itself (*pace* Sisko (1999) 249–67; see further Sorabji (1974) 49 n. 22, 28). A more plausible interpretation is that the form of redness is 'encoded' into the eye (i.e. the form taken on by the eye's fluid is structurally analogous to the form taken on by the seen thing itself in its becoming and being red. See Wood (2012) 176–7 with n. 24 for further references). On 'form without matter' and its development as a response to Empedocles' idea that sense perception comes about through some kind of physical contact, see Polansky (2007) 264; Kalderon (2015) 6–16.

[145] *De An*. 429a13–18. See Whitaker (1995) 14–15; Crivelli (2009) 84; Wood (2012) 180–1.

[146] On the precise nature of this 'taking on' see Sorabji (1992) 209–10; Polansky (2007) 436–8.

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[147] See Sorabji (1992) 196–8. Cf. Halliwell (2009) 252–3; Carli (2010) 308–9 on Arist. *De An*. 418a7–25, 425b12–7a16. This entire parcel of propositional perceptions is also necessary for the recognition of μίμησις described in *Po*. 1448b4–19, which is an inferential process involving the recollection of one's previous experiences of the outside world, as is shown by Tsitsiridis (2005) 440–4. Cf. Togni (2013) 172 on Pl. *Phlb*. 38c5–e8. An analogous idea emerges when the Eleatic Stranger in Plato's *Sophist* (263d6–4b4) characterises φαντασία (an impression upon the consciousness) as an amalgam of αἴσθησις (pure sense perception) and δόξα (propositional belief). See further Kaklamanou (2012) 1192–3.

[148] In fact, for Aristotle all thought is phantastic and so at least involves sensory or quasi–sensory data (see *De An*. 433b28–9; *De Memoria* 450a1; cf. *De An.* 431a15–20; 432a8–12; *MA* 702a17–19), and there are those who believe that this makes it expressly visual (see above, pp. 60–61). But φαντάσματα, though often visual, are best understood in the sense I am describing here as 'presentations' or 'manifestations' — see Beare (1906); Lycos (1964); Schofield (1992); Birondo (2001). Note also that thoughts, though they are phantastic, are not themselves identical to φαντάσματα: *De An*. 432a12–4.

[149] Cf. Pépin (1985) 29: '*la notion d'* ὁμοίωμα *n'est partout réductible à celle d'image*.'

b. Nature and convention: The Aristotelian distance between melody and words

What this conventionalist view of language suggests is that, in a sung poem, the words do not only convey different aspects of what is being depicted than the tune does. They also do that by depicting independently from a structural standpoint, based on different respective relationships between sound and sense. In Plato, tunes and language were both ways of encapsulating in sound different aspects of reality: words captured ideas, whereas melodies captured emotions. But both did so because they were outgrowths of the same single act of depiction, a unified utterance whose syllables resembled the essence of the thing described and whose tonal contours resembled the speaker’s emotional relationship with or response to that thing. For Aristotle, by contrast, both melody and words convey an internal state of the soul, but melody does so by natural resemblance while words do so by conventional symbolism.

An instructive illustration of this difference can be drawn from Aristotle’s comparison between music and visual or plastic arts such as painting and sculpture in the *Politics*. ‘Colours and forms produced [sc. in visual arts],’ says Aristotle, ‘are, properly speaking, signs of ethical states’ (σημεῖα . . . τῶν ἠθῶν). But ‘there are representations of character in songs themeslves’ (ἐν δὲ τοῖς μέλεσιν αὐτοῖς ἔστι μιμήματα τῶν ἠθῶν).[150] That is: a sculpture may depict a man with, for example, a furrowed brow and tense muscles, and we may interpret these outward signs as indicators of frustration so that we infer he is irritable. But these tokens of emotion are not the same as what music accomplishes, which is a manifestation in the sensory realm of emotional and so ethical movements which usually take place within the psyche.[151] The distinction is the same as the one between linguistic and melodic communication. Words, too, are signs (σημεῖα) of states within the soul, rather than resemblances (μιμήματα) of them. Aristotle says as much at *Int.* 16a6–8, a passage already mentioned above (pp. 59–60) which will repay more sustained attention:

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[150] Arist. *Pol.* 1340a28–35.

> Ὥσπερ οὐδὲ γράμματα πᾶσι τὰ αὐτά, οὐδὲ φωναὶ αἱ αὐταί· ὧν μέντοι ταῦτα σημεῖα πρώτων, ταὐτὰ πᾶσι παθήματα τῆς ψυχῆς, καὶ ὧν ταῦτα ὁμοιώματα πράγματα ἤδη ταὐτά.
>
> Just as letters are not the same for all (sc. ‘cultures’), neither are the sounds (‘of words’) themselves. But the original things of which they are signs – and that is the same for everybody, namely conditions of the soul – as well as the things of which those conditions are likenesses, are the same.

Words, as we have noted already, are sounds chosen by convention (they are σημεῖα) which stand in for conditions within the soul. But those conditions themselves are what happens when the soul perceives something and so takes on that thing’s form, thus generating likenesses (ὁμοιώματα) of the thing within the soul. The things and the likenesses are universal: regardless of culture, we all see the same world, and our souls all internalise the forms we encounter in that world so that we can perceive those things.[152] But then we use signs – be they the sounds of words or an image carved onto stone – which make us recall those experiences of perception without actually being, or being structured like, the thing or the perception itself. So even though a sculpture of a man with a furrowed brow does not look like the way frustration feels or even like the things which cause frustration in me, when I see the carved face I am reminded of such things and such feelings so that I call them to mind, just as when I hear you tell me about the paper jam which ruined your workday. Similarly at *De Sensu* 437a3–17, Aristotle says that linguistic sound is not useful to the intellect essentially in itself but because of an accidental property, since 'λόγος, which is the cause of understanding, is audible – not in itself but accidentally.'[153] Melody on the other hand, is a fundamentally different use of sound, achieving a fundamentally different kind of communication: its motions actually resemble those universal inner states which in turn resemble the things our souls have encountered in the world. Thus whereas a sculpture of a frustrated man does not look like frustration, and a narrative about a frustrating event does not sound like that event, if I wrote a tune to express frustration its sounds would actually move the way frustration moves within a frustrated soul.

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[151] Cf. Sörbom (1994) 44.

[152] See further Whitaker (1996) 17–25.

The result is that if I sing 'Amazing Grace' on its traditional tune, I am at once telling you about my experience of being saved from damnation (using verbal tokens having nothing to do with that experience except that you and I have agreed to think about such experiences when we hear those tokens) and making you feel what that experience was like (because the melody I have used soars with uplift in the same way that my soul did when I was saved). But I could just as easily have sung the words of 'Amazing Grace' to the tune of 'I am Stretched on your Grave,' making you think about my experience of salvation while having feelings of dejection and loss.

In Plato such a mismatch between word and tune would have constituted not only a misuse of both media but a violation of the way in which both media were created to work, since both are connected directly to meaning by way of naturalist representation. In Aristotle, by contrast, jumbling up melody and language does not violate the rules for proper construction of either. It may, however, be a disingenuous, confusing, or misleading act of depiction on the part of the composer, because as a musical poet he or she is in the business of using language and music together in order to make one coherent and unified artistic product. Poets are those who, in the famous formulation of the *Poetics*, ‘create a μίμησις in rhythm, language, and metre, either together or separately’ (ποιοῦνται τὴν μίμησιν ἐν ῥυθμῷ καὶ λόγῳ καὶ ἁρμονίᾳ, τούτοις δ’ ἢ χωρὶς ἢ μεμιγμένοις).[154] The fact that Aristotle specifies the use of these media ‘either together or separately’ is significant: they are not inherently connected things but separate entities which work in their own way and must be brought together, if they are going to cooperate, by an intentional act of composition. For Plato, the reprehensible innovators of the New Music had to work to distort music’s natural coherence, fighting against the Muses to force womanly tunes onto manly words and vice versa. In Aristotle, the effort must move in the other direction: poets have to be the ones who assemble the various tools of their craft and use them in concert even though there is no universal law dictating that they will naturally fall in line with one another. By severing the direct connection between a word’s sound and its meaning, Aristotle has also severed the direct connection between a tune’s inherently meaningful sound and the inherently meaningless but conventionally meaningful words which that tune accompanies. It is telling in this context that when Aristotle speaks about music he demonstrates a tendency and a willingness to focus on its sonic elements in abstraction from the poetic language which they may accompany in a manner that is rare in Plato. Brüllmann (2013) 349–50, 357–8 points out that this is especially true in the discussion of music education in *Politics* 1340a14–b5, where the elements expected to do the work of ethically shaping a young soul are μέλος, ῥυθμός, and ἁρμονία. The fact that λόγος is absent cannot be because language is not also capable of effecting ethical instruction, but because Aristotle is talking here about a particular kind of sonic representation which melodies and rhythms accomplish and words do not. It is artists who put language and tunes together; in themselves they simply do not work in the same way as one another.

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[153] Ὁ γὰρ λόγος αἴτιός ἐστι τῆς μαθήσεως ἀκουστὸς ὤν, οὐ καθ' αὔτὸν ἀλλὰ κατὰ συμβεβηκός.

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[154] Arist. *Po*. 1447a21–3.

II. The Soul: Mapping reason and melody onto Aristotle's psychology

a. Reason, persuasion, and ethical music

This designation of separate spheres for words and melodies in the creative act of representation finds a parallel in Aristotle's assignment of μέλος and λόγος to different roles in training the soul. Here as often there is a basic point shared with Plato: Burnyeat (1980) 79–80 has observed that Aristotle draws from his teacher the insight that ethical habituation acts upon a sub–rational part of the soul and indeed should be undertaken before the patient is capable of consciously engaging in logical argument. Aristotle describes this early education as a kind of 'tilling of the soil' which makes a listener susceptible to reason before he is capable of consciously responding to anything beyond the impulses of pleasure and pain.[155] But the Stagirite wants to be more clear than Plato about how exactly these progressive changes happen within the soul. On the one hand, Plato's notion of soul parts was overly simplistic for Aristotle and implied an untenable degree of delegation and separability within what was for him an irreducibly unitary structure. Aristotle's soul is a seamless garment: although he does sometimes speak of it as if it has parts, in his most terminologically specific analyses he prefers the language of 'features' or 'functions.'[156] But on the other hand, he is keen to delineate exactly which features of the soul serve which functions, and consequently to propose a kind of psychological machinery in which music, like everything else, acts as a known input with predictable effects upon a specific part of the mechanism. An examination of that mechanism, and of where music enters into it, will reveal another important way in which the nature of musical expression in Aristotle is different than in Plato.

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[155] Arist. *EN* 1179b4–26.

[156] Δυνάμεις. See Finamore (2013) 3–12 on Arist. *De An*. 402b1–5, 411b5–30, 413b13–32, 432a22–b7; cf. Sherman (1999) 235.

'Aristotle . . . put the matter clearly: action develops the corresponding predisposition in a preexistent potential; it does so through habituation, which becomes our nature.' So wrote W.D. Anderson (1966) 38–9, charting what he saw as an ideological succession of ἦθος theory from Damon as informed by Pythagoras, through Plato, and on into Aristotle's ethical writings. Anderson cites Arist. *EN* 1152a30–33,[157] but he likely has in mind Aristotle's comments throughout the ethical writings (and especially in *Nicomachean Ethics* Books 2–3) which explore the messy relationship between nature, nurture, and choice. Choice (προαίρεσις) for Aristotle is a voluntary action which has been deliberated upon in advance (it applies to τὸ προβεβουλευμένον). This is important, since unlike other voluntary action (such as eating when hungry) choice necessarily entails rational action dictated by thought and λόγος.[158] Notoriously, however, the proper object of deliberation is not ends but means.[159] The ends at which we aim are dictated not, or not solely, by our προαίρεσις but by a web of conscious and unconscious factors both in and out of our control. Chief among these factors are pleasure and pain, which all animals experience and which strongly motivate us towards or away from certain actions.[160] An individual's ἕξεις, 'habits,' are dependent upon how strongly and towards what objects he or she reliably feels pleasure and pain. The whole project of virtue for Aristotle entails aligning one's hedonic habits with the inherently pleasurable nature of what is truly good – that is to say, virtue involves habitually enjoying good action.

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[157] Where Aristotle airs his view that habit is a kind of nature — cf. also *Rh.* 1370a1–9.

[158] Arist. *EN* 1112a14–7: ἡ γὰρ προαίρεσις μετὰ λόγου καὶ διανοίας. See further Kenny (1979) 69–80; Meyer (2006) 140–1; Fiecconi (2018) 231–3.

[159] Arist. *EN* 1112b11–6: βουλευόμεθα δ' οὐ περὶ τῶν τελῶν ἀλλὰ περὶ τῶν πρὸς τὰ τέλη. See Gill (2015) 102–9.

[160] See Arist. *EN* 1104b3–5a16.

It is in the formation of habits that one's genetic material, sociopolitical upbringing, and voluntary lifestyle play interlocking roles whose precise natures are a source of lively modern debate. Certainly Aristotle holds us at least partly responsible for the state of our characters, because we shape them by our voluntary action – a man with a habit for stealing developed that habit by repeatedly choosing to steal.[161] 'For we ourselves are also in some sense to be held accountable for our habitual dispositions,' Aristotle ultimately argues, 'and it is because we are of a given disposition that we set up a given goal.'[162] But Aristotle is well aware that these habit–forming actions were themselves dictated by pleasures and pains to begin with, and that our inclination to feel those pleasures and pains had to come from somewhere.[163] To some degree our hedonic disposition is dictated by our parentage. Mariska Leunissen (2013) 101–26 has used the *Generation of Animals* to suggest provocatively that virtuous impulses may begin to arise for Aristotle during our formation in the womb, resulting in something like a genetic predisposition to virtue.[164] But if we are born with a natural predisposition to feel correct or incorrect pleasures, we are also susceptible to the influence of training, ideally via publicly directed education. In fact, Aristotle thinks that this is a key goal of education: he agrees with Plato that παιδεία is the process of habituating young citizens to like and dislike the right things.[165] As Myles Burnyeat has shown, such educational habituation is different from the rational contemplation and deliberative training that young Athenians are to master at Aristotle's lectures. Παιδεία is rather a prerequisite to those lectures: before they learn to become fully and rationally good, students must be guided by righteous coaches through a daily practice of virtuous action so that they develop a felt sense of what is really good and bad.[166] They must, for example, be made to share with their friends before they understand why they ought to, so that they can come to relish the delightful experience of sharing. In other words, young boys must be trained to take pleasure effortlessly in right action before they engage their logical minds in the full acquisition of independently chosen virtue.[167]

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[161] Arist. *EN* 1114a3–b25; See further Bondeson (1974) 59–65; Brickhouse (1991) 137–48; Fossheim (2001) 73–80; Zumbrunnen (2002) 571; Meyer (2006) 152–6.

[162] Arist. *EN* 1114b22–24: Καὶ γὰρ τῶν ἕξεων συναίτιοί πως αὐτοί ἐσμεν, καὶ τῷ ποιοί τινες εἶναι τὸ τέλος τοιόνδε τιθέμεθα. See Lennox (2015) 195–7 for a cogent argument that we acquire a specifically human kind of virtue precisely when reason becomes a motivating factor in the selection of our ends.

[163] See especially Arist. *EN* 1179b21–9; cf. Sakezles (2007) 232–4.

[164] See further Henry (2006) 425–65.

[165] Arist. *EN* 1104b11–3.

That is where music comes in. The *Nicomachean Ethics* seems to present itself as a preliminary study to the *Politics*, and one prevailing link between the two is this notion of state education.[168] At the end of Book 10 of the *EN*, Aristotle turns again to the feedback loop in which natural gifts, educational upbringing, and voluntary action reinforce one another and habituate us to right or wrong pleasures. Our nature is out of our control, he concedes, but the training we receive in youth can and should be carefully monitored by the state so that we can be trained from the outset in liking the right sorts of things. 'Indeed, the ἦθος must come into some kind of affinity with virtue,' writes Aristotle, 'and it is hard to come upon the right conduct with regards to virtue from one's youth unless one is brought up with the right laws.'[169] It is with this in mind that Aristotle concludes by outlining the aims of, and indeed proposing to begin, a work of political theory.[170] The comments on education in Book 8 of the *Politics* therefore cash the check written in *EN* 10, considering what sort of training or indoctrination can best acclimate a youth's ἦθος such that he enjoys what is truly good.

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[166] See Burnyeat (1980) *passim* but especially 74–5 on Arist. *EN* 1179b4–31. Cf. Curren (2000); Fossheim (2001) 80–5; Hughes (2001) 17–9.

[167] It should be noted that the children who receive such training are not wholly without rational faculties — Sherman (1999) 236–51 issues the salutary reminder that 'the child is not an empty box in which beliefs are instilled.' Nevertheless, it remains true that in Aristotle as in Plato, students must be prepared for their rational education by having their irrational impulses shaped and guided by an external reasoning agent, i.e. the teacher.

[168] See Schofield (2006) 308–10.

[169] Arist. *EN* 1179b29–32: δεῖ δὴ τὸ ἦθος προϋπάρχειν πως οἰκεῖον τῆς ἀρετῆς, στέργον τὸ καλὸν καὶ δυσχεραῖνον τὸ αἰσχρόν. ἐκ νέου δ' ἀγωγῆς ὀρθῆς τυχεῖν πρὸς ἀρετὴν χαλεπὸν μὴ ὑπὸ τοιούτοις τραφέντα νόμοις.

[170] Arist. *EN* 1179a33–81b23.

Music is one such kind of training.[171] Aristotle singles out music as particularly suited to encapsulate μιμήματα τῶν ἠθῶν, and the use of song in the state is to develop in its listeners certain habits and patterns of response to given situations and experiences. What is less immediately obvious but clearly stated is that music is therefore mimetic not just of any kind of psychological state but of the specifically 'ethical' or 'moral' ones: we are exposed in song to 'likenesses in rhythms and melodies of anger and meekness, courage and temperance, as well as all the opposites to these and the other ethical conditions.'[172] Aristotle is clear that these ethical virtues are precisely those which appertain to our hedonic habituation, and he believes that the word ἦθος is itself essentially an etymological variant upon the word ἔθος, habit.[173] Music, then, makes contact with our soul at just the point where we take a compulsive and routine pleasure in particular ways of acting or reacting in given situations – because hearing well–tuned song is naturally pleasurable, it can train us to enjoy courage or restraint by presenting us with representations of those states, even if we do not cognitively or rationally grasp the nature of the states themselves.[174]

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[171] So Schütrumpf (2005) 613–15; Brüllmann (2013) 348 n. 10.

[172] Arist. *Pol*. 1340a18–23: ὁμοιώματα . . . ἐν τοῖς ῥυθμοῖς καὶ τοῖς μέλεσιν ὀργῆς καὶ πραότητος, ἔτι δ᾽ἀνδρείας καὶ σωφροσύνης καὶ πάντων τῶν ἐναντίων τούτοις καὶ τῶν ἄλλων ἠθικῶν. On the individual states mentioned and their treatment in the *EN* see Schütrumpf (2005) 618.

[173] Arist. *EN* 1103a14–18; Sorabji (1980). Schütrumpf (2005) 611–2 is right to bring up these associations in connection with Aristotle's assertion that, through exposure to music, 'we become a certain way with respect to character traits' (ποιοί τινες τὰ ἤθη γιγνόμεθα) – Schütrumpf adduces further useful parallels (especially *Po*. 1450a5). But I disagree with him that Aristotle does not have habituation in mind here. Schütrumpf argues that the use of the phrase ποιοί τινες to suggest the formation of ἕξις is '*anders als hier*,' and it is true that music's immediate effect in the passage is one of temporary emotional response. But it is precisely through the repeat occurrence of such a response that we develop a habit of so responding.

[174] Arist. *Pol*. 1340a14–18. See Busse (1928) 35–7; Destrée (2016) 244–6. The fact that melodic contours generate in us these hedonic rudiments of ethical states, which would

There is in this psychological and ethical system an implicit challenge to the *Timaeus*' claim that music was crafted by the Muses specifically for the purpose of bringing the soul back into order with a rational cosmic λόγος. This is not to say that Aristotle does not think music may indeed be used to prime the soul for rational education – we have seen already that he does think so. But it is far from clear that by writing melodies which associate pleasure with the right kind of ethical states we are putting it to the use for which it was divinely intended. A melody whose motions resemble a reasonable and measured ethical attitude, such as temperance, is presumably more commendable for Aristotle from an educational standpoint than one which jumps across the scale in an erratic and intemperate manner. But such an immoral melody need not be any less well–written as a melody, nor any less pleasurable to listen to. Λόγος, understood as the set of rules and relations which governs the rational management of our impulses and actions, is not a natural feature of melody but one imposed upon it from the outside. What is natural (φυσική) to music for Aristotle is that it causes pleasure, and that it bears an affinity with the soul's ethical motions.[175] But there is nothing to suggest that the psychological motions with which a particular tune bears an affinity need be reasonable or commendable in order for that tune to be well–constructed or pleasant to hear. In fact, as noted above (pp. 57–8 with n. 130), Aristotle thinks adults may freely take pleasure in songs for their pleasant aesthetic features without concerning themselves about whether those aesthetic pleasures are coupled with a depiction of good ethical character. That is, the mathematical principles that dictate which

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otherwise need to arise from lived experience, speaks in favour of Woodruff's (1992) 91 definition of μίμησις as a 'functional deception.' On Woodruff's reading, musical melody could be called a μίμησις of emotional states because the former 'has an effect that is proper' to the latter, causing in the soul an experience akin to that properly caused by the movements of emotion.

[175] Arist. *Pol.* 1340a1–b1: Ἔχει γὰρ ἡ μουσική τιν᾽ ἡδονὴν φυσικήν, and ἐν δὲ τοῖς μέλεσιν αὐτοῖς ἔστι μιμήματα τῶν ἠθῶν, εὐθὺς γὰρ ἡ τῶν ἁρμονιῶν διέστηκε φύσις. Cf. Destrée (2017) 238–41.

notes may be strung together in order to achieve the musical good of consonance are not the same as the ethical laws which dictate how we ought to configure our impulses so as to achieve the human good of virtue.

Consequently, to make a tune which is both pleasurable and communicative of good ethical character, an artist must guide his composition according to rules which are not part of the nature of music, but which come from a field outside that of musical mathematics, namely that of ethics. Just as he has denied that syllables are naturally connected to an intrinsic numerical structure in the universe which would make them inherently meaningful, so Aristotle has refrained from suggesting that music and good morals are inherently connected by their mutual and natural adherence to one divinely ordained cosmic order.[176] There is more than one logically coherent and self–contained system of rules which govern Aristotle's world, and the one which governs human virtue is not intrinsically related to that which governs musical pleasure. Another way of putting this is to say that, because music is not a free–standing science unto itself, it contains elements from various other sciences which may be governed according to various laws: the pleasure of hearing its sounds arises from the correct construction of its mathematical consonances, but its value for moral education depends upon selecting, from among the various ethical states which tunes may resemble, those ethical states which are commendable as determined by the rules governing human life. Making virtuous music thus entails importing into melody a set of concerns and principles foreign to it, namely the ethical principles that determine which hedonic and emotional states ought to be sanctioned and so presented to youths in association with the pleasure of beautiful tunes.

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[176] Similarly, Aristotle makes a distinction between absolute and legal justice at *EN* 1137b11–24 by saying that the world does not conform in each case to the rules which ethical reason dictates, since some parts of the world are not necessarily built to follow those rules by nature.

b. Music and the irrational soul

We saw in Chapter I that, for Plato, the universal order followed a single and ubiquitous λόγος whose pattern dictated 1) the whole architecture of the cosmos, 2) the proper way to fit melodies to words, and 3) the proper way to order the human soul. As a result, the sub–cognitive parts of our soul such as pleasure and desire could be, and indeed were intended by the gods to be, arranged according to a rational order which inheres both in the cosmos and in the structures of music. Now we have seen that the world is more complicated than that in Aristotle, for whom music's affinity with spiritual states is not based on a mutual subjugation to some single overarching rational principle. There is no guarantee in Aristotle that either ethical dispositions or melodic lines will in themselves be naturally consonant, even at their best, with the same λόγος. What makes a melody musically good is not the same as what makes it ethically good, and to make it the latter one must take the raw materials of μέλος and ῥυθμός and shape them by imposing one's rational judgment upon them. This has a parallel in Aristotle's psychology, where not even all parts of the human soul are such as to follow the human mind's λόγος naturally. The parts of our soul which experience pleasure and pain – those upon which music operates – are not naturally rational in Aristotle and must be made to behave rationally by the efforts of another part which is. A few further comments on the soul in the *EN* and the *Politics* will help defend this claim and elucidate its significance for musical compositions.

Aristotle has at least two different but ultimately reconcilable ways of talking about the construction of souls. As noted above (pp. 67–8), in strict philosophical terms it is probably best to understand Aristotle's soul as single and indivisible but with discernibly distinct features and functions. Thus the rational mind is not locationally distinct or otherwise removed from the parts of the soul which experience more basic affections such as pleasure, pain, and desire – though reason is a function only of those souls which have developed to a level of sophistication beyond that of an animal which merely reacts to those lower impulses.[177] But Aristotle is also comfortable talking about the soul as if it had separate parts, and in the *EN* and the *Politics* he does so with some regularity. This is because the primary aim of these two works is not precision of metaphysical terminology but the development of a practical ethics and politics which will be applicable to daily human life.[178] Therefore I take him to be outlining the workings of the soul 'as they are' in the *De Anima*, but in the *EN* and the *Politics* to be describing how the results of those workings feel to us in our lived experience. Our soul may be unitary, but it has discernible features of which we are aware and which occur to the conscious mind as distinct entities in conversation with one another. We are thus told that the part of the soul which possesses λόγος 'commands' the other parts like a parent commanding a child, and at another point that the irrational part of the soul should be like a boy listening to λόγος as to his tutor.[179]

The part of the soul which commands bodily functions such as digestion (τὸ φυτικόν) is strictly irrational (ἄλογον), meaning that though it may follow the laws of physics it is completely insensitive to the conscious exertion of reason and does not respond to its commands. But τὸ ἐπιθυμητικόν, which experiences desires and impulses, can be made to listen to reason or, as Aristotle says, 'to be persuaded' by it.[180] In itself, though, says Aristotle, τὸ ἐπιθυμητικόν is ἄλογον just like τὸ φυτικόν. One might explicate these rather terse claims in the following way. The part of the soul which commands basic bodily functions (τὸ φυτικόν) has no rational will of its own. There is no conscious agency dictating when and why we digest food – we simply digest it according to the mechanical workings of our nutritive soul. And our desires and pleasures, if undirected by reason, will be similarly mechanistic: we will go about wanting and liking things simply because we do, without any further explanation other than the mere fact of the wanting and liking. It is only when λόγος imposes its own structure upon τὸ ἐπιθυμητικόν that the latter can be made to exhibit a more rationally explicable pattern. Since music trains our pleasures and desires, which are in the purview of τὸ ἐπιθυμητικόν, music's proper use in education must be to bring τὸ ἐπιθυμητικόν in line with the dictates of λόγος before λόγος is fully operative in the listener's own soul.

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[177] See Wood (2012) *passim* but especially 180–82 on the special case of νοῦς, which though it transcends any purely material account of its structure is nevertheless epiphenomenal upon the rest of the embodied soul.
[178] See Aristotle's comments at *EN* 1094b11–27, 1179b4–20.
[179] Arist. *EN* 1102b29–1103a3, 1119b11–21; *Pol.* 1254b5–6; Nielsen (2015) 585.
[180] Arist. *EN* 1102a26–3a10. See Broadie (1991) 62–7.

There is thus a strict meaning of λόγος which must be operative here: the natural workings of the physical world are adherent to λόγος of a certain kind, in that they follow discernable rules which may be analysed rationally. Our hungers and desires obey that kind of λόγος: they will occur predictably according to laws of nature. Musical consonance, too, is governed by such a λόγος and is 'rational' in the sense that it behaves in ways predicted by the logically coherent laws of mathematics. But λόγος in the human soul is different: it is the consciously active reason operating in that third part of our psyche which may be spoken about as being rational. Music, desire, and pleasure all naturally follow the first kind of unreflective λόγος which compels a given system to follow mechanistic and predictable rules. But they will not naturally, if left to their own devices, behave in ways commensurate with the conscious human λόγος that employs reason in service of choosing the human good. This is the kind of λόγος which must be imposed upon both melody and desire from outside: virtuous teachers and thoughtful composers must, for Aristotle, use their cognitive λόγος to shape melodies so that their naturally pleasant harmonies will unite with their naturally expressive movements in such a way as to make young listeners' pre–rational souls receptive to rational education in virtue.

This account differs from Plato's in a limited but quite significant way. Obviously Plato also believes in irrational elements of the soul which must be brought to heel by λόγος. We have already seen that a certain kind of unbridled pleasure is ἄλογος for Plato – in the *Timaeus* we are expressly warned that music was given to us 'not for our irrational pleasure' (οὐκ ἐφ' ἡδονὴν ἄλογον) but for the rectification of the soul's rational organisation.[181] More generally, of course, the tripartite Aristotelian scheme I outlined above owes much to Plato's several metaphors for the soul, in each of which the rational principle governs or guides the appetites and desires which would otherwise go their own way. Wilburn (2013) 72–82 makes clear that music in Plato, like music in Aristotle, has the function of molding the habitual responses of the spirited part of the soul, Plato's θυμοειδές. But τὸ λογιστικόν in Plato is not only the natural ally of λόγος. Instead it is that part of the soul which perceives and partakes consciously in the λόγος that pervades all of creation. And so when Plato's rational soul uses music to guide the development of the entire psychosomatic organism, it is reading from a blueprint which both music and the irrational parts of the soul were intended by their creator to follow. By shaping harmonies into ordered patterns and using them to align the soul with λόγος, the rational soul is in effect only working to restore both music and the human listener to their proper and intended organisation, and that organisation is by design in harmony with the unitary cosmic λόγος.[182] This is what does not obtain for Aristotle. Neither music nor the irrational soul is inherently such as to follow the laws of human reason. Τὸ ἐπιθυμητικόν may be made to conform with reason, and music may cause it to do so if a sensible adult uses his or her λόγος to write and select the kinds of melodies that both sound good and mirror virtuous states. But this is human λόγος co–opting music and desire for its rational purposes, not bringing them into their own properly rational alignment as dictated by the divine mind.[183]

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[181] Pl. *Tim*. 47c7–d7.

[182] This feature of Platonic psychology is particularly evident in the *Laws* — see Folch (2016) 83–4 on Pl. *Lg*. 653a5–c4.

III. Land of My Fathers: Several Aristotelian ways to appreciate one song

We find two things in the sounds of well–tuned musical melody: pleasure, and resemblances of ethical states. On this much Plato and Aristotle agree. But for Plato, bringing those two things into alignment was fitting them together as they were always meant to be: making virtuous character traits sound beautiful was the purpose for which pretty tunes were intended, and to do otherwise was to violate the inherent laws of music and the universe. Aristotle, on the other hand, has made aesthetic beauty and virtuous depiction independent of one another: melodies just sound lovely if they are in tune, no matter what kinds of states they resemble, and it is up to us to make depictions of virtue sound attractive to young listeners. Adults, on the other hand, can perfectly well enjoy the lovely sounds of music just for their own sake, and can even take a different kind of pleasure just in the satisfaction of a well–made image – even if the image is of an action or thing which we would find repulsive in real life.[184] Similarly, Plato's natural link between the sounds of words and the meaning of their referents meant that only tunes which follow the pitch–accent contours of virtuous speech can be rightly considered beautiful; lovely tunes applied to reprehensible language would inevitably break this natural bond, making their beauty inferior and our enjoyment of it perverse. Moral beauty and aesthetic beauty do not share this kind of identity for Aristotle: words expressing virtuous thoughts, tunes harmonised to sound lovely, and depictions commendable for their accuracy all possess distinct kinds of excellence which music may have but need not have all at once in order to really be musically laudable.

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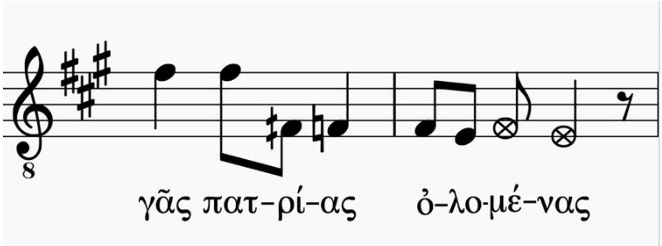
[183] Cf. Broadie (1991) 352–3.

[184] Arist. *Po*. 1448b4–19.

The consequences of these views can be illustrated by application to a short tune from the extant musical documents. Pap. Leiden Inv. P. 510 (= *DAGM* 4) contains a few lines from Euripides' *Iphigenia in Aulis* along with melody that probably comes from a concert performance of excerpted selections from the play.[185] It was copied around the mid–3rd century BC and so probably performed earlier than that – still after Aristotle's death in 322, but not long after. It could well be reflective of musical trends and tastes that would have also obtained during Aristotle's lifetime, and even if things had changed on that front the features that are relevant here – dramatic disunion between pitch–accent and melody, for example – were not new to Greek musical performance. Aristotle would have been familiar with melodies similar to this, and an analysis of this one on his terms is not intolerably anachronistic. Here is the music associated with the words γᾶς πατρίας (line 792):



Ex. 2: E. *IA* 792 (= Pap. Leiden Inv. P. 510; *DAGM* 4)

An immediately remarkable feature of this melody is the sharp drop in pitch on the syllable –ρί–, where the ear of a Greek listener might be conditioned to expect a rise in keeping with the acute accent. The song is astrophic, so no such deviation could have been necessitated by melodic responsion; we can safely assume that this plunge of more than an octave was intentional.[186] For a Platonic listener it must also be in some sense misleading: whatever internal psychological movement is supposed to be suggested by the rising tones of πατρίας is here replaced with a sudden fall, thus associating the singers' thoughts with an emotional trajectory other than the one which their words would suggest. A plausible version of such a complaint might entail the argument that the notion of one's fatherland should inspire elevated feelings of noble loyalty, whereas this melody associates it with a dejected downwards motion.

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[185] See Pöhlmann and West (2001) 20; Prauscello (2006) 160–80; Hagel (2009) 257.
[186] Ct. above, pp. 53–4, and see Pöhlmann and West (2001) 21.

By contrast, an Aristotelian is freed from the requirement that melody and pitch–accent must be at one with each other if the song is to present a true and artistically pleasing μίμησις of what it depicts. The melody moves in a certain way, and that movement has a συγγένεια with certain movements of the soul. But there is no inherent connection between those psychological movements and the conventional structure of the phonemes assigned to certain concepts. That is: there is nothing inherently 'rising' about one's regard for one's fatherland in every instance, even if the word one uses to describe that fatherland is one with an acute accent such as πατρίας. Our ideas of our fatherland, after all, may come along with all sorts of emotional connotations, and may be enfolded into a larger sentiment such as 'I miss my fatherland.' In this case, the chorus is describing and empathising with a woman being ripped bodily from her home country – hardly an image likely to inspire soaring feelings of majesty which might be best expressed by a rise in pitch. On an Aristotelian analysis the syllables γᾶς πατρίας are a symbol of one's concept of one's fatherland, an idea of an existent thing – whatever emotions may be associated with that idea in this case. The chorus can therefore express that idea verbally but layer onto it any number of melodic contours which give it emotional coloration appropriate to the larger context. An Aristotelian could say, for example, that we experience a drop in the pit of our stomachs along with the drop in the melody, and this is entirely appropriate for a depiction of women being subjected to the violent trauma of military abduction. One could even add that the radical disjunct between the tones we expect based on the usual pitch–accent, and the tones we actually get in the melody, creates a subversion of expectations which is itself part of the emotional experience being conveyed. We are 'wrong–footed' by this melody: right in the moment where we would usually expect to soar with delight in our fatherland, we are instead yanked bodily out of it by hostile hands.

The satisfaction that we might gain from recognizing such a complex and multi–layered depiction is distinct from the pleasure which we take in hearing these sounds themselves properly tuned according to the mathematical laws of harmony. The fact that we will have both in this case might be a reason for an Aristotelian to think twice about presenting this material to children, out of a worry that the young should not be trained to associate rape and abduction with pleasure. But for an adult, whose reason is fully formed and who can distinguish between the various kinds of ways in which music can be called 'good,' there would be nothing dangerous or reprehensible in listening to this song. Such a mature listener would be able to decouple his enjoyment of depiction *qua* depiction, from his more directly sensory pleasure in the beautiful sound of well–tuned music, and again from his moral assessment of the value judgments implied in the way the piece treats its subject matter. Aristotle has thus made critical space for a more sophisticated and polyvalent kind of musical semiotics, one which allows songs to express moral and emotional complexities without necessarily violating the universal laws of musical and poetic composition.

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The several aspects of Aristotelian psychology and linguistics which have made this shift in criticism possible are consequent upon the definitional and disciplinary precision which are recurring features throughout Aristotle's corpus. Aristotle takes great care to be specific about what constitutes a unique entity or science, and what essential features can be said to unify various individuals into one coherent class or species. This is a concern he inherits from Plato, who also undertook to discover which unique features of things might be used to determine their essential nature. Plato's Socrates often wants to define, e.g., 'the holy' as distinct from any one holy thing.[187] Aristotle took this effort further by developing an elaborate framework of terms and concepts to designate the features which would distinguish one thing from another. One way in which this is true has been mentioned already and will become important in the next chapter: because Aristotle insisted that a 'science' or field of knowledge (ἐπιστήμη) must be bounded by consistent axioms and principles which apply to all objects of that knowledge, he did not think that the composition of melody was one coherent study of its own. It was instead a kind of sound with features that might be analysed according to the logic of a number of sciences: its consonances and the pleasure of hearing them were to be evaluated using mathematics, whereas the truthfulness of its representations was the reason for its use as part of poetic composition, so that the evaluation of music in those terms fell under the purview of poetics. The proper union between those pleasurable consonances and the ethical states which they resembled was part of yet a third study, that of ethics. This fragmentation of melodic 'goodness' into many distinct and independent aspects would come to exert a powerful influence upon the Peripatetic tradition and anyone who studied music within that tradition or in reaction to it. Aristoxenus' definition of musical sound and his views about its uses for depiction were in large part a result of his grappling with Aristotle's denial that music is a science of its own. Meanwhile the distinction between harmoniously pleasurable sounds and artistically truthful expression would underpin many of the Hellenistic debates which will form the subject of Part II. Thus although Aristotle is often presented as Plato's direct disciple in terms of melody and its capacity to form an artistic depiction, he in fact initiated a number of developments with serious, if latent, ramifications for the subsequent history of music semiotics. We will be living with those ramifications, and their outworking in later theory, for the rest of this dissertation.

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[187] See e.g. Pl. *Euth.* 5c8–d6e, 6d9–e1, *Tht.* 147a1–c6 (and cf. *Phd.* 78d1–e5; Arist. *Metaph.* 987b1–4) with Hestir (2016) 20–21; Reinhardt (2002) 344; Sedley (2003a) 83–6; Ademollo (2011) 278–80.

Chapter III

Synthetic Music: Aristoxenus, Harmonic Science, and Musical Depiction

In the previous chapter we saw that Aristotle's definitional precision and insistence upon disciplinary purity led to a fragmentation among the branches of philosophy dealing with three things which in Plato were integrally unified components of a single musical depiction. These are: the thoughts expressed semantically in a poem's language, the pleasure of hearing a well–tuned melody attached to those words, and the emotive ethical states expressed by the movements of that melody across the scale. Each of these things remains a feature of music for Aristotle, but each is governed by a separate set of rules and so music itself is not one science but an audible version of mathematics capable of being co–opted in the service of poetic depiction or ethical training. Though these divisions between the various features of music and the spheres of judgment which properly evaluate them remain mostly implicit and latent in Aristotle, they come powerfully to bear upon the thought of Aristotle's disaffected but ultimately quite faithful disciple, Aristoxenus of Tarentum.

Aristoxenus' *Elementa Harmonica*, both in its first book and in the freshly revised treatise which begins with our Book 2, is in some senses an extended reaction against Aristotle's argument that music should not be afforded its own study outside of mathematics. This has been widely recognised in recent scholarship on Aristoxenus. But it has also been rightly stressed that, in its theoretical framework, the Tarentine's attempt to rehabilitate music as a free–standing science proceeds along Aristotelian lines and essentially stipulates that Aristotle was correct about what constitutes a science.[188] The *El. Harm.*'s approach is therefore thoroughly Peripatetic even though Aristoxenus' conclusions contradict Aristotle's – Aristoxenus is attempting to specify the way in which musical harmony can be spoken of as an object of scientific study in Aristotelian terms.

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[188] See Barker (1984–9) 1.24–5, 2.67, 123–4, (1991) 201–222 *et passim*, (2007) 105–64; Bélis (1986) 34–8 *et passim*; Gibson (2005) 30–38.

In order to do so, Aristoxenus openly endorses the critical separation between sensory beauty and the content conveyed by melody which I argued was an undercurrent of Aristotle's work. In the *Elementa Harmonica*, Aristoxenus restricts the remit of harmonic judgment to nothing other than the sounds of music as heard, leaving out any consideration of either the mathematical ratios which may generate those sounds, or the ethical depiction in whose service those sounds may be deployed. The resultant distinction between sensory enjoyment of melody *qua* sound on the one hand, and holistic consideration of melody *qua* component of an act of poetic communication on the other, would be tremendously influential for subsequent Hellenistic criticism. At the same time, it will be my contention in this chapter that Aristoxenus does have a robust idea of how melody can be used in collaboration with verbal language and rhythm as part of a unitary composition depicting a single emotion or event – indeed, I will argue that he does not think the full study or practice of music is complete until such a depiction is accomplished. But as implicitly for Aristotle, so explicitly for Aristoxenus, the combination of melody, text, and rhythm into one meaningful composition is an artificial human endeavor, the most developed instance of an act called σύνθεσις which Aristoxenus sees operating in different ways at every level of the compositional process. Poets in Aristoxenus construct their artworks out of an array of disparate elements which they build into progressively elaborate structures and then unite in one final act of synthetic assembly. From letters and syllables, they build words and sentences; from notes and intervals, phrases and melodies; from beats and morae, cola and feet; and when they put together the fruits of all three processes to make all of them depict the same thing, then they have at last composed a song.

I. The Birth of Musicology: Harmonic science and the art of sound as heard

a. What we hear: Sound as the subject of harmonic science

To defend harmonics as an ἐπιστήμη according to Aristotle's requirements, Aristoxenus first had to demonstrate that our evaluation of musical consonance proceeds from primary data available directly to the senses. The principles, or ἀρχαί, of any Aristotelian science must be derived from sense–data – only then can they be appropriately employed as starting points for scientific reasoning.[189] Aristoxenus satisfies this requirement by rejecting an account of musical consonance which in one form or another underlay a vast portion of the musical philosophy which we have examined so far. This is the account wherein musical συμφωνία is a mathematical relationship properly described by the assertion of two numbers such as 2:1 (the octave) or 3:2 (the fifth). For Pythagoras and Plato as much as for Aristotle these numerical ratios were the essence of what it is to be a musical consonance.[190] But Aristoxenus makes the trenchant observation that in reality what constitutes a consonance is just that it is consonant, in that a discerning listener hears it as sounding sweet. We perceive the differences between notes κατὰ τὴν τῆς αἰσθήσεως φαντασίαν, 'according to the impressions of our senses.'[191] This experience on the part of the listener is the *sine qua non* of musical harmony. Although it may correlate to certain physical measurements such as the velocity of air, the length of a string, or the proportional relationships between such measurements, the actual experience which constitutes consonance cannot by any means be reduced to material facts or conceptual calculations.[192]

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[189] See Arist. *An. Post*. 71b10–3a20.

[190] See Gibson (2005) 26–7 with [Plu.] *De Mus*. 1139b6–f4.

[191] See Aristox. *El. Harm*. 1.8.20–5, 1.20.1–6, and cf. the Aristoxenean definition of a note as an actual incidence of the voice at a particular level of tension (φωνῆς πτῶσις ἐπὶ μίαν τάσιν: Aristox. *El. Harm*. 20.16–7; reiterated in e.g. Cleon. *Is*. 1.7–8 Jan; Gaudentius 2.329.7–8 Jan), that is, not merely an abstracted conceptual quantity but a perceptually manifested quality (ποιότης — see Cleon. *Is*. 2.11 Jan). Similarly Thphr. *apud* Porph. in Ptol. *Harm*. 62.1–33 — see Barker (1977) 9–10. This (re–)affirmation of the subjectivity of music and its foundation in a human consciousness has parallels in modernity with e.g. Ingarden (1986) 120. Cf. Monelle (2000) 5.

This saves Aristoxenus from a number of difficulties. First and foremost it defends him against the charge that the true science which governs musical consonance is not harmonics but mathematics. On the Pythagorean account the experience of hearing beautiful melody is simply one among many different kinds of sensory encounters with the various properties of number – we hear proportion when we hear music, just as we see proportion when we see, for example, a well–built house. By making those numerical properties extraneous to the essence of harmony, Aristoxenus has staked out for himself a unique epistemic field whose principles will explain not the physical facts which give rise to music but the actual perception of music itself as heard by a trained ear.[193] But this Aristoxenean phenomenalism also solves another problem. If music really is nothing but sound, that is, if it is only a kind of input into our perceptual apparatus indistinct from that caused by a clap of thunder or a rush of wind, then it cannot in itself be the object of an ἐπιστήμη. This is because scientific knowledge must describe and explain a set of ordered relations which already inheres in the primary sensory experience that serves as its starting point.[194] The phenomenon described must have a nature (φύσις), and that nature must exhibit a comprehensible order which the ἐπιστήμη can describe by enunciating its ἀρχαί. If when we hear music we are hearing sound only, then any order we perceive in a melody must be brought in from outside, dictated according to the principles of some other science such as mathematics.[195] But the claim Aristoxenus has staked for harmonic perception goes beyond mere sound. When I hear a fifth, Aristoxenus wants to say, I am not only hearing two sounds among an infinite number of possible ones. I am also hearing a relationship between those two sounds. Among the things that 'we perceive' (αἰσθανόμεθα) are 'the differences' (τὰς διαφορὰς) between a pair of notes which, though it spans the same distance (μέγεθος) as another pair, plays a different harmonic role in the scale that it occupies.[196] This means that my hearing (ἀκοή) is sufficient in itself to tell not only how 'far apart' two notes are in pitch, but also what role they play melodically, i.e., how they fit into the set of interrelations that makes a particular series of sounds into a coherent structural framework. This second property of scalar function, and not the numeric magnitude of pitch–difference, is the proper subject of harmonic study – we are interested not in the quantitative facts about how far apart notes are, but in the qualitative features they exhibit as part of a harmonic sequence. Put in modern terms, when a piece in the key of B flat major contains a C sharp minor triad, it is my ear that picks up on that dissonance as a qualitative experience of misfit or abnormality, independent of any physical or acoustic calculations I may also be capable of making. For Aristoxenus, melodic properties such as scalar function and consonance are themselves objects of perception. Our αἴσθησις is what gives us access to the melodic arrangement inherent in music, and therefore the human experience of melody includes the perception of an ordered structure which can properly be considered the object of a unique scientific analysis.

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[192] See Barker (1984–9) 2.123–4, (1991) 204–5 with Aristox. *El. Harm*. 2.32.18–28, 1.9.2–11, 12.4–32, and cf. 40.11–24; Levin (2007) 415. Note also Aristox *El. Harm.* 1.12, where Aristoxenus argues that a note 'stands still' and does not move for the purposes of harmonics even if we grant the physical principle of acoustics that voice is produced by a motion of air. The important fact is not whether there is some sort of material motion involved but whether a trained audience hears motion of the specifically melodic kind to which its perception is attuned in listening to a song. Cf. Panaetius *apud* Porph. *in* Ptol. *Harm*. 81.6–82.3 with Raffa (2018) 37 n. 2.

[193] This is what makes the Pythagorean project of discerning the ratios behind musical sound largely irrelevant to Aristoxenus' aims: see Barker (1979) 3–4 and (1984–9) 2.120; Tolsa (2017) 44–5 with esp. Aristox. *El. Harm*. 32.20–33.1; cf. Leach (2007) 15.

[194] See Arist. *An. Post.* 75b14–20, 76a9–15, 78b32–9a16.

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[195] See Lear (1982); Lennox (1986) 31–44; Barker (1991) 203–4 on Arist. *De Sensu* 439b19–40a.

[196] Aristox. *El. Harm*. 33.32–34.10.

b. What we understand: Moving from harmonious sounds to harmonic theory

The perception of sense–data is a crucial starting point, but it is only the beginning of an Aristotelian science. Even if the rules of harmonics inhere in the sounds of consonance, we must use reason to abstract those rules out of our many sensory experiences and contemplate the axioms that will enable us to make predictions about other perceptions we will experience in the future. Having identified the primary sense–data of harmonics as the heard sounds of harmonious notes, then, Aristoxenus had to describe what it is that inheres in all such data which scholars can extract by reasoning and contemplate in isolation. The concept which answers that question for Aristoxenus is that of δύναμις. This lynchpin of Aristoxenean thought is introduced in Book 2 of the *Elementa Harmonica*, and it is a transformative innovation which identifies that book as the beginning of a new treatise rather than merely a continuation or restatement of Book 1.[197] The basic premise is easy to grasp. Essentially, when I refer to 'scalar function,' I am invoking a modern concept not unlike Aristoxenus' δύναμις. This concept is so central to modern Western music theory that its presence is almost not felt. The idea is that a sound as heard within a melody does not appear to the senses merely as a sound, but as a particular piece of a scale with a specific role to play in that scale (or, more properly for Aristoxenus, within a σύστημα – a sequence of intervals usually spanning a fourth). Take for instance the sound produced by 440 Hz, the internationally standard frequency for the A above middle C. If I hear that sound in the course of listening to a song in the key of A natural, then I am hearing what I would call the tonic, a fundamental note to which the piece will probably return at key moments. But if I hear the sound of 440 Hz while listening to a song in B flat major, then I am hearing the 7th or the leading tone, a note which has a very different role to play in the melody and upon which the composer will likely not dwell.[198] The key point here is that for Aristoxenus, when I hear those two different instances of the sound made by 440 Hz, I am actually hearing different sounds, at least in terms of my melodic perception. The fact that both sounds have the same quantitative properties is irrelevant; what matters is the way they strike the perception of someone listening to them in the context of a melody. This is how things seem ‘to the impressions of sense perception,’ whereby we discern a sound’s melodic quality by examining ‘the similarity of one type’ rather than ‘the size of some one interval.’[199] Strictly speaking the subject of harmonic science is exactly this sensory experience: the quality we perceive in sounds, whatever their frequency, which allows us to call them ‘tonic’ or ‘dominant’ (or, in the roughly correspondent Greek terms, μέση or λιχανός).[200]

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[197] See Barker (1984–9) 2.122, (2007) 115–35; Gibson (2005) 44–8; *contra* Bélis (1986) 34–48, who argues powerfully but unsuccessfully for the unity of the text.

Aristoxenus insisted that the ear, ἀκοή, is what perceives all melodic properties of notes, including the size of the intervals in which they stand and, crucially, the δυνάμεις which they exhibit. But once we have heard the notes of a melody, ‘we theorise about their δυνάμεις with the mind (διάνοια).’[201] This is the process whereby we reason from our melodic perception to the ἀρχαί which will constitute the basic premises of harmonic science. Once we have heard enough melodies, for example, we might be able to deduce from what we have heard the law that two ditone intervals cannot stand side by side in any Greek scale.[202] This kind of generalised proposition about all melodic sound is not the sort of thing that can be heard in any one melody – it must be inferred by the mind on the basis of multiple recollected sense–experiences. The rules we generate about harmonics are thus determined by memory and reason and are not directly available to our senses.[203] But it is safe for Aristoxenus to advance this claim because he has already made clear that the things about which we reason are all directly available to αἴσθησις. It is our experience of melody *qua* melody that we synthesise, abstract, and articulate with διάνοια, and the general rules at which we arrive by harmonic reasoning are all purely about our phenomenological experience of notes heard as structural entities with specific δυνάμεις in a scale.[204]

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[198] This rough comparison with modern theory will suffice for our purposes here, but in practice the functions of notes within Aristoxenus’ συστήματα are quite different. The fundamental note of a Greek scale, for example is the middle (μέση) and not the bottom note of the scale. For a succinct explanation see Barker (1991) 208–9; cf. Hagel (2018) 129.

[199] Aristox. *El. Harm*. 46.24–50.14: ἐκείνη (sc. ἡ αἴσθησις) μὲν γὰρ εἰς ὁμοιότητα ἑνός τινος εἴδους βλέπουσα τό τε χρῶμα λέγει καὶ τὴν ἁρμονίαν, ἀλλ’ οὐκ εἰς ἑνός τινος διαστήματος μέγεθος.

[200] Because what we hear when we hear melody is not simply pitch but δύναμις, we are therefore able to speak about such things as notes which come ‘in order’ (συνεχές), one after the other with nothing in between. Of course the continuum of pitch is infinite in the abstract, but in a scale only certain discrete points are properly available, and so to our ears notes which are next to one another in the scale sound ‘continuous’ — see e.g. Aristox. *El. Harm*. 27.15–29.1, 4.24–5, 17.30–31, 52.35–3.34, 59.7–32. Cf. Cleon. *Is.* 10.3–5 Jan.

[201] Aristox. *El. Harm*. 2.33.4–8: τῇ . . . διανοίᾳ θεωροῦμεν τὰς τούτων δυνάμεις. Here this statement is in contrast to the ability of ἀκοή to perceive μέγεθος, not because μέγεθος is the object of harmonic study, but because knowing about the numerical distances between notes can help in the process of reasoning about our experience of melodic δύναμις. See Barker

These observations make it clear that Aristoxenus' harmonics depends upon cognitively isolating one feature of an experience in a characteristically Aristotelian act of 'aspectual separation.' That is: Aristoxenus does not think the ear only hears δυνάμεις – it also hears things, such as timbre or syllabification, which are irrelevant to the harmonic

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(1991) 211–4, (2005) 163–5, and especially (2007) 171 on reconciling *El. Harm*. 33.6–9 with 34.25–30: 'we encounter *dynameis* in our perceptual experience of melodies as well as in intellectual reflection on them.'

[202] See Aristox. *El. Harm*. 64.1–10. This and a large number of other propositions in Book 3 (see e.g. 63.1–8, 65.3–9, 10–19) depend upon the foundational assumption that any note in a Greek scale will either form a fourth with the fourth successive note away from it in either direction, or a fifth with the fifth such note. I take this basic general proposition about the nature of scales to be one of the primary applications of διάνοια to the collective observations of ἀκοή in Aristoxenus' treatise. See 29.5–16, 53.33–4.11; Barker (1984–9) 1.24, 2.146 n. 124, 167 n. 105, 170–1 n. 2.

[203] Cf. Aristox. *El. Harm*. 38.35–39.2, where Aristoxenus explains the twin roles of ἀκοή and διάνοια by saying, ἐκ δύο γὰρ δὴ τούτων ἡ τῆς μουσικῆς ξύνεσίς ἐστιν, αἰσθήσεώς τε καὶ μνήμης.

[204] These rules must also then conform to our sense experiences, and cannot be correct if they contradict what we hear in the actual moment of listening to a melody — see Barker (1991) 213 with Aristox. *El. Harm*. 44.11–13.

properties of a given sound. Thus our perceptual experience has wrapped up within it a varied array of data, only some of which is the proper object of the διάνοια in harmonic reasoning. If, for example, I hear the word 'behold' sung on the note C sharp in the key of A natural major, then I perceive many things all at once. I hear 1) a sound of about 277.18 Hz, 2) the note C sharp as the 3rd or mediant of its key, and 3) the λέξις of 'behold', that is, the sound of two syllables pronounced in succession. In my hearing all three experiences are bound inextricably together, a singular instance of auditory stimulation. But insofar as I am reasoning about melody and harmony, it is the job of my διάνοια to focus solely upon item 2), to extricate conceptually the properties which this sound has in its role as part of a melody. Even if I never hear – even if it is impossible to hear – an entirely 'pure melody' separated out from its attendant words or the extraneous qualities of its sound, I am able as a musical theorist to focus solely on the sound *qua* melody. This aspectuality is at the heart of Aristoxenus' harmonic science, which depends upon the mind's ability to consider a sound's melodic properties as if those were the only properties it had.

By specifying so exactly the object of harmonic inquiry, Aristoxenus effectively isolates musical melody as an independent, free–standing artistic entity unto itself. Of course, Greek scholars of music at least since Lasus of Hermione and probably earlier had turned their attention to the nature of musical harmony and the proportional relations which make it what it is.[205] But many such earlier theorists studied harmony as an inextricable part of the full poetic composition, a sonic structure whose arrangement was in relation to and perhaps even determined by considerations such as the character depicted in a song or the ethical makeup of an artist's chosen subject. As has already become clear, even Damon, who seems to have categorised the formal elements of rhythm to a high degree of technical specificity, found in those elements the basis for an extra–musical system of ethical communication and instruction.[206] The Platonic vision of musical composition according to a central λόγος makes this depictive union between meaning, text, and melody explicit. There were those who saw the matter differently – the Hibeh papyrus gives one example of a thinker for whom harmonic structure bore no relation to ἦθος.[207] And Aristoxenus himself makes repeated reference to a group of predecessors, οἱ ἁρμονικοί or οἱ ἔμπροσθεν, who seem to have focussed on delineating the species of the octave as purely harmonic structures.[208] But Aristoxenus is eager to claim that neither those who link melody with ethical structures, nor those who isolate it unto itself, define the nature of harmonics quite as he has done.

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[205] See e.g. Levin (2009) 86, 189.

There is reason to believe he had a point. Those who studied harmonic structure on its own, he insists, merely described what they discovered and did not adequately account for their findings by reasoned demonstration.[209] But perhaps the greater sin was that of 'those so–called harmonicists' who introduced into their discussions something that 'is not the goal of the science under discussion.'[210] That particular accusation is concerned specifically with the analysis of musical notation and the structural exigencies of instruments, neither of which, according to Aristoxenus, is related to the essential nature of harmonic sound. But we also read early in Book 2 that those who expect, by studying harmonics, to learn to manipulate music's effects on ἦθος, will be disappointed.[211] Similarly those such as the Pythagoreans who make harmonics into a study of physical acoustics or mathematical quantity are guilty of propounding ‘utterly irrelevant arguments’ (ἀλλοτριωτάτους λόγους).[212] The point in each case is that things like ethical representation, organology, and notation, are simply external to the nature of harmonics. Thus while those who diagrammed the species of the octave failed to explain the phenomena they perceived, those who discussed ἦθος or notation did not even have the sense to restrict themselves to purely auditory phenomena in the first place. To put it another way, the former group were deficient in their application of διάνοια, but the latter were unaware that the only proper object of harmonic study is the experience of the ἀκοή. To hear Aristoxenus tell it, then, his primary achievement was to make musical sound, *tout court*, the object of rigorous theoretical study. Aristotle had provided him with the resources to do so, but the Stagirite himself had fallen short of specifying the true nature of music by misidentifying melody with the numbers that produce it and focussing in artistic criticism on the use of tunes in representation rather than centralising the actual sounds as a primary object of attention in and of themselves. Neverhteless it was under the influence of Aristotle and on the basis of his methodological principles that Aristoxenus sectioned off melody as its own independent artistic entity, governed by internally coherent rules and fully comprehensible without reference to any external considerations beyond the sensory experience of melody itself.

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[206] See above, p. 29 n. 58.

[207] *P. Hibeh* 13; see further Barker (1978) 4–8, (1984–9) 1.183–4; West (1992) 18–9; Pelosi (2017) 393–4 with n. 1.

[208] See Aristox. *El. Harm*. 2.11–30, 37.8–35; see further Barker (1978) 8–18, (1984–9) 2.124–5. On Aristoxenus' predecessors see further Bélis (1986) 90–107, but with Barker's notes about the identity of οἱ ἔμπροσθεν and the reduced role of the Pythagoreans.

[209] See Aristox. *El. Harm*. 32.20–31.

[210] Aristox. *El. Harm*. 40.24–43.24: οὐκ ἔστι τὸ . . . πέρας τῆς εἰρημένης ἐπιστήμης.

[211] Aristox. *El. Harm*. 31.16–29.

The consequences of this move for the composition process as a whole are profound. In Aristoxenus’ hands, musical sound becomes entirely its own and need bear no relation to the lexical sound or semantic referent that it may accompany. The human ear, Aristoxenus asserts, responds to melody *qua* melody. No matter how often such melody may occur simultaneously with poetic language or mimetic performance, its fundamental nature is still at least conceptually separable and artistically distinct. Moreover, we find in the fragments of Aristoxenus’ *Elementa Rhythmica* that much the same thing can be said of rhythmical structures. Here Aristoxenus writes that ‘there are many natures of rhythm,’ ‘but for the time being (*νῦν*) we must speak about that kind assigned to music.’[213] Later we learn from Aristides Quintilianus about some of the other kinds of rhythm Aristoxenus may have wanted to exclude: ‘the term “rhythm” is . . . applied to bodies that do not move (so we speak of a statue with “good rhythm”) and to all moving things (thus we speak of someone walking “with good rhythm”) and uniquely to sound (ἰδίως ἐπὶ φωνῆς).’[214] We may surmise that Aristides and Aristoxenus have roughly the same project here, or rather that Aristides adopts Aristoxenus’ project, which is to exclude from the proper study of rhythm those things which are spoken of by analogy as ‘having rhythm.’ What this means is that even things whose structures mirror or reproduce that of rhythmic composition – physically well–proportioned bodies, for instance, or measured movement in space – do not for Aristoxenus have the essential quality that makes music what it is. Consequently Aristoxenus must reject the Platonic–cum–Pythagorean mode of thinking in which the rhythmical and harmonic features of musical sound are only one instantiation of a more widespread order or logic which may equally be found embodied in a beautiful face or in just statecraft. The auditory experience of hearing musically ordered sound is self–contained and cannot be confused even analogically with our experience of other things such as psychological disposition or visual imagery. Considered in their essence, ‘being melodic’ and ‘being rhythmic’ are qualities to be ascribed, in Aristides’ words, ἰδίως ἐπὶ φωνῆς – uniquely to sound as heard by a musical listener. Melody and rhythm thus are not inherently, *qua* musical structures, bearers of psychological or mimetic content. Ethical representation, lexical arrangement, and semantic communication may happen alongside the experience of musical sound, but they are not what that experience fundamentally is.[215]

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[212] Aristox. *El. Harm*. 32.27–8.

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[213] Aristox. *El. Rhythm*. 2.1: τοῦ ῥυθμοῦ πλείους εἰσὶ φύσεις . . . νῦν δὲ ἡμῖν περὶ αὐτοῦ λεκτέον τοῦ ἐν μουσικῇ ταττομένου ῥυθμοῦ. Aristoxenus says something similar about melody at *El. Harm*. 4.9–14.
[214] Arist. Quint. *De Mus*. 1.13.1–5.

II. Whither Ἦθος? Ethical depiction in and beyond the *Harmonics*

a. Composition: How sounds make meaning in Aristoxenus

The foregoing overview of Aristoxenus' philosophy of harmonics let us understand why the *Elementa Harmonica* excludes factors such as ἦθος from its purview: it is not because music may not be used in a depiction of ethical character, but because melody *qua* melody must be considered as a set of consonant sounds and evaluated without reference to anything other than itself.[216] But if such concerns as verbal composition or ethical influence are set apart from the fields of harmonics and rhythmics, they are notably not excluded from the study of music as a whole. Aristoxenus reminds us at a number of points that the scope of 'the musician's purview' (ἡ τοῦ μουσικοῦ ἕξις) goes much beyond the territory that is to be covered in the *Elementa Harmonica* and encompasses a variety of other 'things concerning music' (τὰ κατὰ μουσικήν). Not only that, but we are told at the outset of Book 1 that such things are 'higher' (ἀνώτερον) than the harmonic issues currently under consideration, and that they have to do with the deployment of melodic structures in service of a bigger project. Here is Aristoxenus’ suggestive pronouncement on the subject (*El. Harm.* 1.2.1–7):

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[215] We might note in support of this interpretation the fact that συστήματα in Aristoxenus and his successors have been effectively scrubbed of whatever ethical properties they may have had in earlier accounts. The σύστημα in Plato is synonymous with the ἁρμονία (see Pl. *Phlb*. 17c11–d5), and so each one carries with it its own ethical–emotional content, as also in Aristotle. By contrast a σύστημα in Aristoxenus is simply a composite of more than one interval, a selection of notes considered in purely harmonic terms and articulated without reference to ἦθος. See Aristox. *Harm*. 15.30–18.4, 36.15–38.5; Gaudentius 4; Cleon. *Is*. 1.12–3, 8.1–11.13 Jan — with which last compare 28.3–18, where Cleonides does assign ethical properties to different modes of μελοποιία, indicating that ἦθος is to be found not in harmonic structures themselves but in their use for actual composition — *contra* Thorp (1991) 55–6, 61–9.

[216] See above, p. 92 with n. 211, and cf. further Aristox. *El. Harm*. 2.32.40.12–41.8; Ptol. *Harm*. 1.9 (= 20.11–14 Düring); Barker (1991) 191–2, (2005) 163; Levin (2009) 67–9.

> Τὰ δ’ ἀνώτερον ὅσα θεωρεῖται χρωμένης ἤδη τῆς ποιητικῆς τοῖς τε συστήμασι καὶ τοῖς τόνοις οὐκέτι ταύτης (sc. τῆς πραγματείας) ἐστίν, ἀλλὰ τῆς ταύτην τε καὶ τὰς ἄλλας περιεχούσης ἐπιστήμης, δι’ ὧν πάντα θεωρεῖται τὰ κατὰ μουσικήν. αὕτη δ’ ἐστὶν ἡ τοῦ μουσικοῦ ἕξις.
>
> The higher things which are considered when composition uses scales and keys are no longer part of our subject matter here, but rather of the science which embraces these and all other matters – the science through which all the things concerning music are considered. And that is the musician’s purview.

What we learn is that the fully trained musical expert (ὁ μουσικός) will have mastered an ἐπιστήμη that includes the science of harmonics but also makes use of it in the service of some more all–encompassing compositional art. It is tempting to translate ποιητική as ‘poetry’ (Macran did so), and I will argue that the fitting of words and music to one another probably was part of what Aristoxenus had in mind here.[217] But it would be begging the question to assume this outright. By translating ποιητική as ‘composition’ with Da Rios and Barker, I am sticking for now to the bare minimum of what Aristoxenus must mean here.[218] He is making reference to a science of composition which, whatever else it may do, teaches its students how to use the relationships between notes discovered by harmonics (as well as probably the temporal logic described by rhythmics and any other laws uncovered by the subsidiary musical sciences) in order to assemble a complete piece of correctly structured music, whether with or without words. Any recovery of Aristoxenus’ views on musical expression must turn upon a plausible reading of what falls within the scope of this ‘total’ ἐπιστήμη. If he had ideas about how words and music could combine in mutual depiction or communication, they would have been part of this combinatory science, in which composition ‘uses’ the subsidiary technical branches of musical knowledge. I will now argue that Aristoxenus did have such ideas, and outline what they seem to have been.

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[217] Macran (1902) 165.

[218] See further Barker (2007) 231–3.

One thing which very likely did form a part of the musician’s science was the study of ἦθος. Aristoxenus notoriously excludes ἦθος from harmonics but mentions that he has given lectures in which he claimed that ‘some kinds of melody hurt character, and others benefit it.’ He reminds readers that he qualified this statement with the phrase, ‘insofar as music can benefit.’[219] I take this disclaimer to limit not the strength of music’s ethical powers, but the source of them: Aristoxenus is concerned here with removing irrelevancies from the ambit of harmonics, and so he wants to remind us that music affects character only in respect of those parts of it (καθ’ ὅσον) which may be evaluated on ethical terms (i.e., not in respect of its harmonic correctness). So, unlike Plato and Aristotle, Aristoxenus does not think that harmonic structures *qua* harmonic structures have inherent ethical properties. But he does think that music as a whole can alter ἦθος.[220] We may therefore surmise that the higher ἐπιστήμη which dictates the rules of τὰ κατὰ μουσικήν would instruct a musician in the use of melodic and rhythmic structures which, though not enough on their own to effect a change in character, could in the right combinations become part of a holistic composition that would make its listener ethically better or worse. How would such a science work, and what might the role of poetic language be in it? There are three observations that can help point us towards an answer.

First, we can note two features which Aristoxenus believes are common to all parts of μουσική. At *El. Harm*. 2.38.31–2 we read that melody (μέλος) happens in real time (ἐν γενέσει), as do the rest of the parts of music (τὰ λοιπὰ μέρη τῆς μουσικῆς). This statement, initially rather opaque, becomes more lucid if we understand Aristoxenus to be using γένεσις in the Aristotelian sense of 'coming into being.' That concept in Aristotle is connected to a long–established binary in Greek philosophy, going back at least to Parmenides, in which the realm of permanence and being (οὐσία/τὸ εἶναι) is contrasted with that of the ever–changing and shifting world which we see around us (the world of γένεσις and τὸ γίγνεσθαι).[221] This latter world, of tables and chairs and people and horses, is the world which is universally subject to γένεσις and φθορά – everything which we see around us has a beginning, a path of development, a manner of decay, and ultimately a death. But it is also this world which must be the object of study for any natural scientist – that is, for anyone who investigates the φύσις which dictates a necessary course for this lifecycle. It is very important to Aristoxenus that music does indeed have a φύσις, and thus that it is something which happens in the real world, or 'in real time.' That is to say, the parts of music are not immutable abstractions such as 'the fourth' or 'euphony,' but actual events in a moment of performance, occurrences of tonal sound and intervallic movement which first do not exist, and then do, and then cease to do so.

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[219] Aristox. *El. Harm*. 2.31.19–29: ἥ μὲν τοιαύτη βλάπτει τὰ ἤθη ἥ δὲ τοιαύτη ὠφελεῖ . . . καθ’ ὅσον μουσικὴ δύναται ὠφελεῖν.

[220] See further Arist. Quint. 2.3, 14–15, 18; [Plu.] *De Mus.* 1142e10–4e9, 1145d9–6a4; Barker (1989) 148 n. 6, 459–60 with nn. 4–10; and note that Aristoxenus was associated with ethical music to the extent that he was made the protagonist of a ‘music therapy’ anecdote: Thprh. 726A Fortenbaugh.

This fits with what has already been said about Aristoxenus' emphasis on music as a heard experience, and it is further confirmed by another general statement about μουσική at *El. Harm*. 2.42.23–30. The subject there is the derivative and secondary nature of instruments, which are dependent upon, and do not themselves create, the nature (φύσις) inherent in harmony and the order (τάξις) dictated by that nature. Instruments must conform to that order ‘under the direction of sense perception, to which these matters and the rest of the things to do with music all come back.’[222] This constitutes an affirmation that not only harmonics and rhythmics but anything at all having to do with music must for Aristoxenus be grounded in phenomenological occurrences, and that any principle relating to music must describe and conform to the natural order perceived by the αἴσθησις of someone who spends his time listening to real musical performances.

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[221] These distinctions are formulated and elaborated upon at Pl. *Phaed*. 77c6–9b8; *Tim*. 27d5–8c2; *Tht*. 184b4–6e12, and elsewhere. For the Aristotelian concept see Arist. *Metaph*. 100a22–6, 1025b3–13; *GC* 317a17–27, 319b6–22a28; and see further Joachim (1922) xvii–xxii; Burnyeat (1976) 49–51 *et passim*; Loriaux (1969) 164–5; Tarán (1981) 432; Kaklamanou (2012), 1183–93.

Aristoxenus does not say explicitly whether there is any substantive distinction between the ‘parts of music’ (τὰ μέρη τῆς μουσικῆς) and the ‘things having to do with music’ (τὰ κατὰ μουσικήν). But it is significant that the overarching ἐπιστήμη of music deals with τὰ κατὰ μουσικήν, which seems the broader of the two phrases: not only those things which are themselves music, but anything even having to do with music. For example, notes heard in real time, such as ‘this tonic, A sharp, which I am now hearing,’ are unquestionably ‘parts of music.’ But the abstract concept of ‘an interval’ without reference to any one particular interval now being heard, is probably not music in Aristoxenus’ terms. It is certainly, however, one of the concepts necessary for a full understanding of music, and thus must be something ‘having to do with music.’ This distinction seems to square with the two statements under discussion. It is music itself that takes place ἐν γενέσει: its ‘parts,’ such as notes and intervals, are occurrences of actual sound performed in a definite period of time. Concepts like ‘a scale’ or ‘an interval’ do not occur ἐν γενέσει and are not music. But all such concepts must ultimately lead back to αἴσθησις, that is, they must be in keeping with the primary data of a listener’s heard experience and the musical structure to which it gives him access. Read thus, these two statements tell us more about Aristoxenus’ phenomenalism in the broader context of musical composition as a περιέχουσα ἐπιστήμη. Whereas μουσική itself is an occurrence of sound in time, the musician's full science also has to do not only with the extraction of general principles from that occurrence, but also with the use of those principles to compose an entire song. So although the musical expert will always ground his compositional action in the experience of his ear, he may also make use of a variety of ideas and principles which are not themselves sensory. It is possible that such ideas would include those about ἦθος or linguistic communication, but to explore that possibility further we will need to turn to our next observation.

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[222] Τῆς αἰσθήσεως αὐτοῖς ἐπιστατούσης πρὸς ἣν ἀνάγεται καὶ ταῦτα καὶ τὰ λοιπὰ τῶν κατὰ μουσικήν.

It is this: Aristoxenus thinks that stringing together intervals and notes to make a melody is in some way similar to stringing together syllables to make words. He says so at *El. Harm*. 1.27.16–34, when he clarifies the meaning of 'continuity' (συνέχεια) for notes and intervals. We read,

> Φαίνεται δὲ τοιαύτη τις φύσις εἶναι τοῦ συνεχοῦς ἐν τῇ μελῳδίᾳ οἵα καὶ ἐν τῇ λέξει περὶ τὴν τῶν γραμμάτων σύνθεσιν· καὶ γὰρ ἐν τῷ διαλέγεσθαι φύσει ἡ φωνὴ καθ' ἑκάστην τῶν ξυλλαβῶν πρῶτόν τι καὶ δεύτερον τῶν γραμμάτων τίθησι καὶ τρίτον καὶ τέταρτον καὶ κατὰ τοὺς λοιποὺς ἀριθμοὺς ὡσαύτως, οὐ πᾶν μετὰ πᾶν, ἀλλ' ἔστι τοιαύτη τις φυσικὴ αὔξησις τῆς συνθέσεως. παραπλησίως δὲ καὶ ἐν τῷ μελῳδεῖν ἔοικεν ἡ φωνὴ τιθέναι κατὰ συνέχειαν τά τε διαστήματα καὶ τοὺς φθόγγους φυσικήν τινα σύνθεσιν διαφυλάττουσα.
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> It seems that there is the same kind of nature of the continuous in melody as that in λέξις regarding the combination of letters. For also in speaking, by nature the voice places some particular syllable first, second, third, fourth, and so on with the rest of the numbers, not any one after any other: there is a natural progression of combination. Very similarly, the voice also seems to place notes and intervals in continuity when singing a melody, retaining a certain natural principle of combination.

What is in question is how we know which notes are 'next to' each other in a given scalar system when, technically, the line of pitch is infinitely divisible. Given any starting note, it is impossible and meaningless (Aristoxenus insists, though others have tried) to search for the absolutely 'closest' or 'next' note separated by the 'smallest' interval – the possibilities are limitless.[223] Instead, when we hear a song with a given harmonic structure, we know which notes are next to each other because our ears give us access to the nature of that structure. If I am listening to a C being played in the key of A flat major, I can hear the arrangement of that scale and the δύναμις of that note within it, so that I can tell that D flat, and not D natural, is the next note up. Not only that, but Aristoxenus seems here to suggest that, when stringing together a sequence of notes in a melody, a composer can tell which of the various notes in his chosen scalar arrangement might come next, and which would constitute a harsh or graceless jump over the wrong kind of interval for this melodic moment. This is because the composer has a sense of the nature of music, the φύσις which makes it what it is and according to which a given melodic progression is ἐμμελής (melodic) or ἐκμελής (unmelodic, dissonant).[224]

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[223] See above, p. 89 n. 200, and *El. Harm*. 1.27.34–28.30.

This is the way in which writing a melody is like constructing λέξις: words, too, have a nature, and that nature tells which syllables may be placed in front of which other ones. It would be easy to assume that the criteria at stake are not semantic but aesthetic ones. Aristoxenus' main subject is the technical concerns governing the relations between notes which make them sound euphonious or dissonant, and his claim is that λέξις follows comparable rules in its own sphere. Besides the fact that the word λέξις itself calls to mind the phonetic formation of language somewhat more readily than its semantic properties, we might also note that Greek is indeed governed by observable trends that limit the range of acceptable phonemes that should follow a given letter. A syllable ending in κ might easily be followed by ν, for example, but not by ψ. In all likelihood, such rules are foremost in Aristoxenus' mind when he compares lexical and melodic continuity: at issue in both cases are the natural laws dictating which sequences of noise sound right to us, and which wrong.

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[224] See also *El. Harm*. 2.53.34–55.3; and cf. Thprh. *ap*. Porph. *In Harm.* 1.3 (= fr. 716.7–9, 130–32 Fortenbaugh).

But we should be careful about limiting the sense of this passage to purely auditory concerns. Barker (1984–9) 2.145 n. 115 notes that Aristoxenus' comparison recurs in a fragment from a treatise by the Peripatetic Adrastus.[225] Adrastus makes a more detailed comparison between the constituent parts of language and those of melody, beginning with the smallest indivisible elements of each (φωναὶ πρῶταί . . . καὶ στοιχειώδεις καὶ ἀδιαίρετοι καὶ ἐλάχισται). As might be expected, these are letters (γράμματα) in language and notes (φθόγγοι) for melody. Letters and notes are respectively combined into syllables (συλλαβαί) and intervals (διαστήματα), which seems relatively uncomplicated – so far as language goes we seem still to be in phonetic territory. But the third level of linguistic combination, the one compared with συστήματα, is not simply 'words' but 'nouns and verbs' (τά τε ῥήματα καὶ ὀνόματα). One could imagine talking about λέξεις, or even about ὀνόματα or λόγοι, in a purely phenomenological sense, considering them in their capacity as concatenations of phonemic sound rather than as bearers of meaning. But to refer to ῥήματα καὶ ὀνόματα is to consider words not as mere sequences of sounds but as syntactical elements with distinct roles to play in the act of linguistic communication. For Adrastus, at least, the σύνθεσις of letters in phonetically appropriate order leads not only to euphonious chains of sound but also to comprehensible units of meaning, just as stringing notes together in the right way gives rise not simply to an undifferentiated sequence but to συστήματα, ordered structures whose constituent parts form an intelligible network of relationships.

Potentially more focused on phonetic concerns, however, is a passage from the *Philebus* which may inform both Adrastus and Aristoxenus.[226] There the subject is a complex, likely Pythagorean scheme in which all theoretical knowledge is described in terms of undifferentiated (or 'numerically indefinite') continuums made intelligible by categorisation into numerically definite units.[227] For example, says Socrates, there is an infinite number of sounds one might articulate with the mouth, but knowledge of language entails recognising that certain ranges of such sound can be grouped into a determinate species and classified as a particular letter. This determinacy is what enables us to discern the ways in which letters interact to form words, just as making sense out of the infinitely divisible pitch continuum requires the identification of definite intervals and συστήματα.[228] In the sphere of language such knowledge makes one γραμματικός. This is a polyvalent term, but in Plato it can refer to literacy as the capacity to recognise and decode the sounds designated by each alphabetic symbol, as well as to knowledge of the laws dictating phonetic euphony of the kind mentioned above.[229] In the *Theaetetus*, the γραμματικός is specifically contrasted with someone who knows about the meaning of words: Socrates says that when asked about Theaetetus' name, we would speak γραμματικῶς if we merely enumerated its syllables, whereas to speak ἐπιστημόνως would require having a correct δόξα about the person designated by those syllables. Here, then, the formation of melodies out of notes is compared with that of words out of letters in a way that may seem to imply that both are concerned merely with the arrangements of sound, irrespective of meaning.

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[225] Adrastus *apud* Theon Smyrn. 49.6–20.
[226] See Barker (1984–9) 2.213 n. 12.

Two considerations must serve as a corrective to such a reading of the *Philebus* passage, however. To begin with, we should recall from the *Cratylus* that letters in Plato are not simply sounds devoid in themselves of any semantic properties. Rather, phonemes are associated with spheres of meaning via articulatory μίμησις, so that each letter at once makes a sound and evokes via that sound a range of concepts such as ‘speed’ or ‘breeziness.’ We can take this observation further by adding that in the *Republic*, Plato again compares γραμματική with the knowledge of music in a way that suggests there is more to the knowledge of letters than the mere memorisation of sounds. Knowing one’s letters, says Socrates, is to the τέχνη γραμματική what knowing the εἴδη of things such as σωφροσύνη and ἀνδρεία is to music.[230] That is, we grasp the elements of music not when we are familiar simply with its constituent notes as pure sound, but when we know the basic dispositions of the soul which those notes can resemble. *Mutatis mutandis*, being γραμματικός would therefore seem to imply not only knowing how each letter sounds but also being acquainted with the family of qualities which it mimetically conveys. So even if Plato’s comparisons between music and language are primarily lexical, they are not completely separable from semiotic concerns.

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[227] See Gosling (1975) 83.
[228] Pl. *Phlb*. 16c5–18d2 with Gosling (1975) 170–3; cf. *Soph*. 253a4–b4. On the different meaning of the word σύστημα for Plato see above, p. 95 n. 215.
[229] See e.g. Pl. *Pol*. 285c8–d3; *Crat*. 431e10–11; *Tht*. 198e4.

All of this opens up the possibility that Aristoxenus’ comparison between letters and notes need not be entirely limited to pure lexical sound. Adrastus especially seems to carry forward Aristoxenus’ point in such a way as to imply that he, at least, thinks that it has validity also in the semantic sphere. It is potentially significant that Adrastus likens melody to λόγος, which may indicate that he is more willing to bring meaning into the comparison than Aristoxenus, who speaks in terms of λέξις. But the parallel between the two passages is otherwise very close, and Adrastus’ point may even be recycled from the *Harmonics*. Therefore it remains suggestive that, in elaborating upon an essentially Aristoxenean point, Adrastus speaks in terms of both phonetic formation and syntactic function. Indeed, though I have artificially distinguished between them for the purpose of this discussion so far, the two concerns are not really so neatly separated in Greek thought. This can be seen by reference to the atomistic tradition of linguistic analysis, which is the tradition evoked whenever the language of στοιχεῖα is applied to words. The discourse which posits irreducible building blocks as the essential basis of some more elaborate structure is ultimately rooted in the physical theories of Democritus and Leucippus.[231] The application of atomist ideas to lexical formation can be found throughout a range of Greek commentaries on language, including some by both Plato and Aristotle.[232] Such a theory makes meaning arise from the combination process whereby alphabetic στοιχεῖα become syllables and words – at some point in that process sound gains meaning and becomes language.[233] This is particularly explicit in the theories of Chrysippus and the Stoics who followed him. Of course, syllables could be combined in such a way as to be devoid of meaning, as in the nonsensical coinage βλίτυρι. But the investment of syllables with meaning was a function of no other process than the correct arrangement of lexical στοιχεῖα according to the rules of language.[234] The distinction between the terms λόγος and λέξις was for the Stoics that the former denoted only syllabic combinations invested with meaning, whereas the latter designated both such combinations and others, such as βλίτυρι, which where ἀσήμαντα.[235] On such an account Aristoxenus, who refers to λέξις, would not be talking exclusively about meaningfully arranged linguistic sounds. But he would be talking about such sounds, and the rules to which he refers may include those relating to the principles of combination which lead to semantically intelligible speech. Situating Aristoxenus within the theoretical context that *El. Harm*. 1.27.16–34 evokes, then, indicates that he does not have only phonetic rectitude in mind when he likens music and λέξις. It is more plausible that he has in mind both the phonetically permissible arrangement of lexical sound and the use of such arrangement to form semantically meaningful words.

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[230] Pl. *R*. 402a7–d9.

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[231] See Democr. fr. 21 Diels–Kranz; Arist. *GC* 315b6–15.
[232] See Pl. *Tht*. 201d8–e2; *Cra.* 422a1–b5; Arist. *Metaph*. 985b12–19; *Po.* 1456b20–5.
[233] See e.g. Arist. *Po.* 1456b34–7a30; Pl. *Cra.* 424d5–5a5; D.L. 7.43–62; Origenes *Cels.* 1.24 (= *FDS* 643); Lloyd (1971) 60–1; Janko (2000) 178–82.
[234] See below, pp. 179–81.
[235] D.L. 7.57.

We can begin to gather these observations into a plausible account of Aristoxenean semiotics if we turn our attention to one final issue, that of μελοποιία. This is a complicated concept in Aristoxenus' work because it is the subject of a major revision between Books 1 and 2. In the former, μελοποιία is excluded from the science of harmonics; in the latter, it forms not only part of that science but its τέλος, the aim or end towards which it moves.[236] That word has great weight coming from a disciple of Aristotle. Whether Aristoxenus means that the goal of harmonic study is actually to compose melodies or merely to understand the principles behind melodic composition, he seems to think in Book 2 that those principles are the ones for the sake of which one might learn the rest of what his treatise teaches.[237] A key word for understanding how Aristoxenus conceives of this teleology is χρῆσις: all of the decisions about how a melody will proceed from one note to the next, and over which intervals, will be governed 'according to the use' (παρὰ τὴν χρῆσιν) to which the notes and intervals are put.[238] The idea seems to be that all principles laid out in the *Harmonics* – the proper order of intervals in each σύστημα, the rules dictating which notes may follow which in proper σύνθεσις, and so on – tell us what range of combinations and sequences of notes are structurally permissible under various given circumstances, but not which one we ought to choose on each particular occasion. The theory of μελοποιία is what teaches us to deploy our knowledge of all those general rules so as to make worthy compositional choices.

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[236] Compare Aristox. *El. Harm.* 1.34.2–6 with 2.38.16–27. This is one of the major differences between Books 1 and 2, although it need not represent a complete about face by Aristoxenus so much as a change in approach: see Barker (1984–9) 2.121–2, 155 n. 36; Rocconi (2005) 292, (2012) 77–8 n. 43.
[237] See Barker (2007) 230–3.
[238] Aristox. *El. Harm.* 2.38.22–3. Cf. the recurrence of this same phrase at Arist. *EE* 1219a13–18, where Aristotle explains that techniques are fully understood by reference to the work, the ἔργον, which results when they are put to use.

Aristoxenus still seems to think of μελοποιία as having to do with this same idea of proper χρῆσις even when he excludes it from the study of harmonics in Book 1. There, as we already saw, the musician moves beyond harmonics proper 'when composition *uses* scales and keys' (χρωμένης ἤδη τῆς ποιητικῆς τοῖς τε συστήμασι καὶ τοῖς τόνοις).[239] Whatever relation the study of μελοποιία may bear to that of harmonics, then, it will certainly tell us how to put the theoretical principles of intervallic structure to use in actual composition.

b. Three in one: How to write Aristoxenean synthetic music

What, then, are the concerns which Aristoxenus might expect his students to consider in determining how to use the intervals and notes which are available to them? The answer will depend in large part on the sense in which the Tarentine uses the words ποιεῖν and ποιητική. I have already given my reasons for thinking that these words cannot refer to what is often casually called 'poetry' in modernity – that is, to the creation of verbal compositions distinct from melody and onto which melody might be decoratively grafted.[240] But I do not think that Aristoxenus uses them here to mean the reverse extreme either. That is, Aristoxenus does not have in mind the purely musical arrangement of melodic and rhythmic sound without reference to any verbal considerations. Such a reading might gain a hint of support from the argument that when Aristoxenus uses ποιητική and ποιεῖν he is referring to μελοποιία, as in the making of melodies.[241] But it does not make sense to limit Aristoxenus' idea of μέλος in all cases and contexts to tonal and rhythmic sound. To be sure, the explicit topic of the *Harmonics* is sound as heard *qua* melody. And, as I have stressed, one of Aristoxenus' major innovations was to isolate the melodic properties of an auditory experience for exclusively harmonic analysis. But the Tarentine is clearly aware that this is an artificial isolation, an intellectual operation which separates out particular features of a sound invested with numerous other properties. This is perhaps most clearly seen in an Aristoxenean passage of the pseudo–Plutarchan *De Musica*. Soterichus, the mouthpiece for Aristoxenus, has just claimed that someone who is only an expert in harmonics (a ἁρμονικός) 'is in some way circumscribed' (περιγέγραπται τρόπῳ τινί). In developing this assertion that there is more to music than harmonics, Soterichus says (1144a8–b1),

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[239] Aristides Quintilianus, whose idea of μελοποιία is manifold and may incorporate elements from sources other than Aristoxenus, nevertheless still names χρῆσις as one of three main branches of the compositional science. He includes under the heading of χρῆσις the choice of which notes to use (πεττεία), which he says is the 'most important part' of μελοποιία and will determine the ἦθος of a melody (Arist. Quint. *De Mus*. 28.10–29.21, 81.3–6: τῶν μερῶν τῆς μελοποιίας ἡ καλουμένη πεττεία τὸ χρησιμώτατον). In the handbook of Cleonides, where the source is more clearly Aristoxenus alone, χρῆσις becomes the sole and definitional feature of μελοποιία (Cleon. *Is*. 14.1–8 Jan).

[240] See above, pp. 8–9.

[241] See esp. Aristox. *El. Harm*. 2.31.22–6.

> Αἰεὶ γὰρ ἀναγκαῖον τρί' ἐλάχιστα εἶναι τὰ πίπτοντα ἅμ' εἰς τὴν ἀκοήν, φθόγγον τε καὶ χρόνον καὶ συλλαβὴν ἢ γράμμα. συμβήσεται δ' ἐκ μὲν τῆς κατὰ τὸν φθόγγον πορείας τὸ ἡρμοσμένον γνωρίζεσθαι, ἐκ δὲ τῆς κατὰ χρόνον τὸν ῥυθμόν, ἐκ δὲ τῆς κατὰ γράμμα ἢ συλλαβὴν τὸ λεγόμενον.
>
> At least three things must always strike our ears: the note, the temporal unit, and the syllable or letter. And the harmonics will become recognisable in the note–by–note progression, the rhythm in the succession of temporal units, and what is said in the succession of letters or syllables.

What Soterichus is expounding here is an Aristoxenean picture of the complete and unitary experience of musical audition via the ἀκοή which is then to be analysed into its constituent parts by διάνοια.[242] The hearer of a piece of music is hearing words sung to a tune in rhythmic time, and to fully understand his experience he must comprehend not only its tonal and temporal structure but also its linguistic properties as a verbal text.[243] A μέλος for

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[242] Cf. [Plu.] *De Mus*. 1143f3–4a7; see further Barker (2007) 236–9, (2013) 402–3; on the Aristoxenean source see Lassere (1954) 102–3, 175–6; Meriani (2003) 49–81; Rocconi (2005) 296 with n. 26.

[243] One might also note in this context that Aristoxenus wrote on a vast array of musical subjects, some of which, such as *On Tragic Poets* (περὶ τραγῳδοποιῶν: Amm. s.v. ῥύεσθαι), very probably led him to assess the verbal as well as the musical aspects of poetry. But this is not conclusive evidence that he thought words were part of μουσική, since his massive corpus of 453 works included plenty of subjects which had nothing whatever to do

Aristoxenus is thus more than a tune or a beat. It is a musical poem: a heard performance in which word, tone, and rhythm are cognitively separable but acoustically concatenated.[244] In light of such an assessment it makes most sense to understand Aristoxenus' concept of ποίησις as an artistic action which results in the creation of such a μέλος, that is, in the production of a musical poem complete with words. We are dealing with the total compositional process and with the full suite of lexical, harmonic, and rhythmic concerns which such a process implies.

Soterichus also gives us an idea of the criteria against which one might judge the success of such a composition, and in doing so he hints at how words, melody, and rhythm fit together to make meaning in Aristoxenean theory. The relevant passage comes almost immediately after the one just quoted, and it describes how, according to Aristoxenus, educated critics ought to evaluate musical ἦθος (1144d3–e9). Sotericus says first that each composition (τῶν ποιημάτων ἕκαστον) as actually sung and played in real time (οἷον τὸ ᾀδόμενον ἢ αὐλούμενον ἢ κιθαριζόμενον) and the interpretation of that composition in performance (ἡ ἑκάστου αὐτῶν ἑρμηνεία) is a complete unit (τέλειον) and a proper object of ethical judgment. So, he continues,

> Ὑποκρίνειε γὰρ ἄν τις ἀκούων αὐλητοῦ, πότερόν ποτε συμφωνοῦσιν οἱ αὐλοὶ ἢ οὔ, καὶ πότερον ἡ διάλεκτος σαφὴς ἢ τοὐναντίον· τούτων δ᾽ ἕκαστον μέρος ἐστὶ τῆς αὐλητικῆς ἑρμηνείας, οὐ μέντοι τέλος, ἀλλ᾽ ἕνεκα τοῦ τέλους γιγνόμενον· παρὰ ταῦτα γὰρ αὖ καὶ τὰ τοιαῦτα πάντα κριθήσεται τὸ τῆς ἑρμηνείας ἦθος, εἰ οἰκεῖον ἀποδίδοται τῷ παραποδοθέντι ποιήματι, ὃ μεταχειρίσασθαι καὶ ἑρμηνεῦσαι ὁ ἐνεργῶν βεβούληται. ὁ αὐτὸς δὲ λόγος καὶ ἐπὶ τῶν παθῶν τῶν ὑπὸ τῆς ποιητικῆς σημαινομένων ἐν τοῖς ποιήμασιν.
>
> In this way someone listening to an aulete might judge whether the pipes are in tune with each other or not, and whether what is being said is clear or the opposite. Each of these is a part of the auletic interpretation: it is not the complete whole, but that which is caused by the complete whole. For beyond these and all such things the ἦθος of the interpretation

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with music. Even the περὶ τραγῳδοποιῶν may have been more biographical than theoretical. See further Suda A 3927; Etym. Magn. s.v. Σίκιννις; Ath. *Deip*. 14.631d; Macran (1902) 89–90; Laloy (1904) 16–7; Wehrli (1945) 28–37, fr. 60–116; Gibson (2005) 103–21; Rocconi (2012) 66; Pelosi (2017) 406; *OCD* s.v. 'Aristoxenus.'

[244] See Rocconi (2012) 79–81.

> will be judged: whether the interpreter has made it appropriately to the composition that was handed over to him, which he, in actualising it, has chosen to take in hand and interpret. And the same account holds good of the affective states represented by the composer in what he has composed.

These two rich passages bring together the various strands of thought we have been tracing in Aristoxenus. A piece of music is an event occurring in real time (ἐν γενέσει) all of whose features are wholly present to the listener's αἴσθησις. The abstract concepts and principles which one derives from one's analytical attention to such pieces (one's application of διάνοια) must ultimately refer back to and be confirmed by this primary experience of a piece as performed in time and space (the perception of one's ἀκοή). That experience itself is a simultaneous whole which can be cognitively analysed from at least three aspects: that of rhythmic time, that of tonal pitch, and that of syllabic or lexical articulation. The indivisible στοιχεῖα of those three entities are built into increasingly elaborate structures via distinct but analogous processes of atomistic combination: as notes are built into intervals and συστήματα, so letters are combined to form syllables and then words.[245] Each process is governed by natural laws which dictate the principles of σύνθεσις, whereby στοιχεῖα are placed in proper relation to one another so that they form coherent structures such as συστήματα, cola, and nouns or verbs.

Soterichus also indicates that each of these structures can be spoken of as contributing to an ethically 'meaningful' act of signification. The assembly or σύνθεσις of rhythmic, melodic, and lexical elements is judged according to its proper or improper correspondence with the features of 'the things signified' (σημαινόμενα) by the composer in his composition. These things are πάθη, affections of the soul, which Soterichus treats as the objects of musico–poetical depiction. The fact that melodic and rhythmic sound contribute to this depiction just as much as does the language of the poem is made clear by the reference to the ‘διάλεκτος’ of the aulos – the thing which it is ‘saying,’ which may be clear (σαφής) or not in its communication. So rhythm, melody, and words all have a role to play in describing or depicting the same thing, and the thing described is explicitly ethical.[246] Words and music in Aristoxenus should be used for a common purpose, and that is depicting an ἦθος of the soul as manifested in the πάθη which the composer chooses to convey.[247] The effectiveness of the word, rhythm, and melody in accomplishing this purpose is framed in terms of οἰκειότης, a principle of ‘appropriateness’ which also emerges in other Aristoxenean sources as a criterion for successful musical composition.[248] This appropriateness has to do both with the compositional choices made by the original artist and the interpretational choices made by subsequent performers. In the passage of the *De Musica* which introduces the discussion we have been analysing, Soterichus explains that οἰκειότης is a function of a certain σύνθεσις of all music’s various elements into one coherent whole, which is the job not of the harmonicist or the rhythmic theorist but of the artist (τοῦ τεχνίτου ἔργον).[249] The job of the τεχνίτης, then, is to ‘synthesise’ further the three more isolated συνθέσεις of melody, rhythm, and language into one complete meta–σύνθεσις, arranging each of these synthetic parts together into a single depictive whole. In themselves, considered as structurally sound or unsound assemblies of notes, letters, and so on, these artistic elements do not have ethical properties. But considered in their entirety as communicative and aesthetic entities, they are capable of being arranged together in such a way as to take on those properties and so to be invested with representative meaning.

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[245] The same is true of rhythm, where the basic unit is Aristoxenus' πρῶτος χρόνος, an innovative concept upon which he insists and which forms the indivisible basis of all rhythmic structures: see *El. Rhythm.* fr. 10 Pearson; Porph. *in* Ptol. *Harm.* 4 (= pp. 78–9 Düring; 255–6 Wallis; 32–5 Pearson).

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[246] See Rocconi (2012) 65–7, 72–86 on whether or not this means that Aristoxenus wants to evaluate pieces of music on ‘moral’ terms: I agree with Rocconi that musical ‘goodness’ for Aristoxenus is wrapped up not simply in aesthetic judgment but also in concerns about moral edification. Differently Barker (2007) 247–59, (2013) 412–4. Probably this is another case in which χρῆσις becomes a key concept: a song is not good *as* a song for being morally edifying, but songs are used well if they are used to benefit, or at least not to harm, the listener’s moral life.

[247] It should be noted, however, that this is not a case of simple one–to–one correspondence between a given ἁρμονία and its corresponding ἦθος, à la Plato. Aristoxenus rejects that notion, and he must have in mind a more fluid kind of depiction involving χρῆσις, where melodic motion can be used in a variety of ways to convey emotional or characterological states. See Barker (2013) 403–6.

[248] See e.g. Cleon. *Is*. 180.8–10 Jan; Bryenn. *Harm*. 172.27–9 Jonker.

[249] [Plu.] *De Mus*. 1143a2–b1, cf. b2–d4. See further Rocconi (2012) 80–81.

Soterichus also uses the term μίξις, apparently interchangeably with σύνθεσις, despite the fact that Aristotle (*GC* 328a5–18) clearly distinguishes the two. In μίξις, the combined elements are blended together and lose their original identity; in σύνθεσις, elements remain distinct and are merely arranged or sequentially joined. This may be a confused and false synonymity introduced by pseudo–Plutarch,[250] but it may also be an acknowledgement of the fact that, whereas notes or letters are quite clearly joined via σύνθεσις, the combination of rhythm, melody, and language is aspectually a σύνθεσις but perceptually a μίξις. As we have already seen, all three elements occur to the senses as a single experience, but each has a distinct conceptual identity which can be analysed separately. Aristotle accounts in the same passage of *GC* for the possibility that some συνθέσεις may be so tightly joined as to appear 'mixed according to perception' (μεμιγμένα πρὸς τὴν αἴσθησιν), and perhaps we are dealing here with a version of that: Aristoxenus (as conveyed by pseudo–Plutarch) wants us to recognise that the thing we are describing is a unitary composition experienced in performance as one whole, but that it can be treated in analysis as a synthetic combination of distinct parts.

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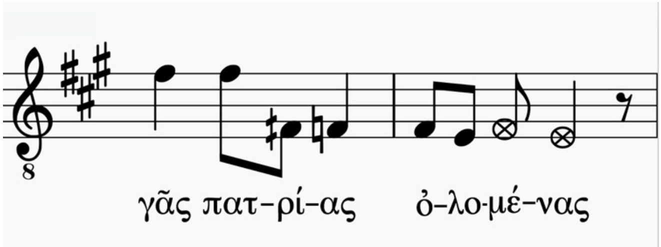
[250] So Rocconi (2005) 294–5.

III. Putting it Together: A musical composition, synthetically analysed



Ex. 2: E. *IA* 792 (= Pap. Leiden Inv. P. 510; *DAGM* 4)

Returning to the musical example from the previous chapter (Ex. 2), we can see how Aristoxenus' theory allows for full analysis of both the expressive and the technical features of music in terms different from those of Aristotle, but still quintessentially Peripatetic. The Hyperaeolian ἁρμονία in which this song is written was not, strictly speaking, a mode described in Aristoxenus' account of the full harmonic system. It is, however, a transposition by one octave of another mode recognized by Aristoxenus, which he called the Low Hypophrygian.[251] This makes it irregular, although not technically incorrect from a structural point of view: the scale's register is uncommon, but it contains no intervals or sequences of notes forbidden by Aristoxenus' basic principles of harmonics. There are some who have argued that this poses a challenge to the authenticity of the fragment or the accuracy of the modern interpretations it has occasioned.[252] But we know that Aristoxenus recognized a certain degree of slippage between his systematic description of the orthodox musical possibilities, and the actual realities of music as performed in practice.[253] There is nothing inherently implausible in suggesting that an innovative composer, aiming to capture the chorus women's intense emotional agitation in heightened vocal tones, would have taken one of the more 'commonplace' available mode structures and transposed it upwards for a striking effect. There would have been no barrier to recording such a novelty, since the Greek music notation system could be used to write melodies in previously unexplored registers and keys.[254]

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[251] The notation system could in principle be used to write in tunings that had not been formally named (as Hagel (2009) 4 details — see further Arist. Quint. 1.11 with Pöhlmann and West (2001) 134–7 on Pap. Yale CtYBR Inv. 4510).

[252] See Hagel (2009) 257–8. Hagel's concern is essentially that the melody is tuned to a ἁρμονία which would not be standardised in the theory textbooks until after the 3rd century BC (when the papyrus was produced). But since the Hyperaeolian ἁρμονία is a theoretically sound permutation of another which had long existed, it would have represented an innovation rather than an aberration. So why should a daring composer not write a melody in a well–known tuning, but raise the pitch to suggest the keening of a woman in lament?

Thus, in fact, this fragment provides a useful opportunity to study music which would have been artistically daring and formally unusual, but not technically incorrect, according to the basic rules of Aristoxenus' *Harmonics*. This illuminates the fact that Aristoxenus' theory has sectioned off space to talk about the technical and aesthetic elements of a melody in isolation from one another, while still ultimately maintaining an awareness of the entire composition as one expressive work of art. An Aristoxenean critique of this music might thus take issue with the unusual mode, or even protest against it as straining the limits of music's nature. But those complaints would belong uniquely to the realm of pure melodic pleasure, affecting whether the song will strike the ear as tuneful and pleasant or jarring and shrill. Whatever one's answer to that question, though, the mode's use in dramatic depiction becomes an issue of χρῆσις, the higher–level concern of how appropriately this tune, whether or not we enjoy it as a musical structure, has been deployed truthfully in the service of ethical expression. To such a question an Aristoxenean critic could plausibly answer 'yes,' in which case his full response to this piece on these terms would be, 'I find this melody technically suspect, but it does a good job of conveying what is being shown onstage.'

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[253] See e.g. [Plu.] *Mus*. 1145a–b, where it is noted with distaste that the true enharmonic shade loses its purest theoretical shape in actual practice. Cf. Csapo (2004) 244–5; Hagel (2009) 415–16.

[254] Thus Hagel (2009) 4, and see further Arist. Quint. 1.11 with Pöhlmann and West (2001) 134–7 on Pap. Yale CtYBR Inv. 4510.

Also a question of χρῆσις is the disjunct between melodic path and pitch–accent contour noted in the previous chapter. Here again no rules of harmonics *per se* are violated, because the rules which govern pitches in their relation to one another have nothing to do with those governing lexical formation except by analogy. I can write a melody that is perfectly in tune, and meaningful words whose letters fit comfortably next to one another, without guaranteeing that the two will be structurally linked to one another in any way. But when I move on to the next level of σύνθεσις, then I have to ask how I might join a string of notes and a sequence of words together so that the relationship between them contributes to the overall picture I am trying to paint. In the case of the *IA* fragment, an Aristoxenean could make all the same remarks about nuance and emotional coloration in this section as an Aristotelian could, observing that the melody's downward plunge creates an unexpected sense of dejection contrasted against a word, 'fatherland,' which we might normally associate with feelings of pride. The productive tension between semantic meaning and melodic movement is something that an Aristoxenean critic could happily notice if he stipulated that it is not a feature of the melody as a harmonic structure, but rather a result of that harmonic structure's use in combination with other synthetic structures such as lexically meaningful sentences.

The same might also be said of playing melody off against other features of a sung poem such as the sounds of its syllables considered in isolation from their semantic meaning and used as onomatopoetic imitations of the sound of the things described. We know from a number of anecdotes that several composers used the sounds of their instruments to mimic the sounds of some narrative event – the noises of the Python dying at Apollo's hands seem to have been a particular crowd favourite.[255] And of course, similar phonetic μίμησις was commonly employed in a linguistic mode as onomatopoeia – both words and music could, at times, be used to mimic the sound of the thing being described. There is an example of the two phenomena occurring at once in a later (128/7 BC) paean by Athenaios, son of Athenaios which will be examined in some further detail below (pp. 155–7).[256] Here the Python is beaten into submission ‘until the beast let out strident, close–packed hisses and finally breathed his last’: [ἔσθ’ ὁ θήρ, πυκνὰ] συρίγμαθ’ ἱεὶς ἀθώπε[υτ’, ἀπέπνευσ’ ὁμῶς·]. The text is incomplete, but we can at least see a concatenation of Sigmas and Thetas (with more likely occurring in the lacunae) reproducing the hisses of the serpent’s death throes. At the same time the melody, which had previously travelled in smooth arcs up and down the scale, adopts a writing back–and–forth motion building to an apex (the highest note used in the song) at the moment just before the creature expires. There is clearly play going on here between the lexical sound and the melodic motion, two kinds of sonic experience complementing each other in an integrated musical portrait of the dramatic struggle and defeat which the text describes. There are tools in the Aristoxenean panoply not only to analyse each of these features separately, but to identify and appreciate the many varied ways in which they can play off of one another to bring what is described to life. Musical depiction thus becomes a question, not of the inherent features of melody *qua* melody, but of the relational networks between melody, text, and rhythm as they are deployed in conversation with one another.

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[255] See Pollux *Onomasticon* 4.84; Str. 9.3.10; Destrée (2016) 242–3; Rocconi (2016) 72–3, 81–2; Pöhlmann (2018) 332–3. On physical gesture as a mimetic addition to instrumental music see Arist. *Po*. 1461b29–32.

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This way of understanding music – as a set of lexical, tonal, and temporal hearing experiences blended into one unitary moment of artistic perception – opens up in full an avenue of purely aesthetic criticism that was entirely closed off in Plato and only potentially available in Aristotle. In his efforts to formalise harmonics to satisfy Aristotle’s definition of a science, Aristoxenus has identified an aspect of music which is nothing other than formally arranged sound evaluated solely on the basis of auditory experience and pleasure. The rules which govern those sonic arrangements are rationally comprehensible, but they are utterly distinct from those which guide our thinking about how such arrangements might be used in order to convey a set of emotions or experiences to the mind of the listener. Those latter rules are the rules of χρῆσις, an act of putting rhythms, sentences, and melodies to use as interactive bearers of meaning which they would not necessarily have in themselves *qua* formally arranged sounds. There is thus room to evaluate the sensory pleasure which a melody affords its listener in isolation from the way in which that melody may or may not communicate something other than the facts of its sounds. I argued in the previous chapter that something like this approach was prefigured by the changes Aristotle made to Platonic psychology and metaphysics, but it is Aristoxenus who makes this separation of critical spheres official.

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[256] See further Pöhlmann and West (2001) 71–2.

One important consequence of that separation is that the question whether a song is a 'good' artistic depiction now becomes one of appropriateness (οἰκειότης): because poets are in the business of taking sound–structures and putting them to joint use as bearers of meaning, the question becomes how accurately or appropriately they do so. Are the sounds of the words, their meanings, and the harmonised tones which accompany them, deployed together in such a way as to really get at what it is like to be in the presence of a wailing widow, or a dying serpent? Or is there some disjunct between the sounds, pleasurable and well–constructed though they may be on their own terms, and the character whose presence and experiences those sounds are being used to convey? By assigning those two questions of aural loveliness and expressive appropriateness to separate disciplines within the overarching study of music, Aristoxenus has brought us to the beginning of the Hellenistic period and the radical forms of post–ἦθος criticism which emerged therein. After Aristoxenus, the

Peripatetic fragmentation of sound and sense continued and generated critical approaches which evaluated artistically arranged συνθέσεις of sounds on their own terms as pleasurable sensory input, considered separately from the οἰκειότης with which those sounds could be used to convey meaning. By carrying Aristotle's departure from Plato forward and making room to talk about sounds in isolation from depiction or content, Aristoxenus has set the stage for a new era in the Greek semiotics of music in which melody and meaning grow increasingly separate. The history of that further development will be the subject of Part II.

Conclusion to Part I

Where Things Stand Now

There will be more to say about οἰκειότης in Part II, but for now a few final points about Aristoxenus will close this treatment of his semiotics and its critical place in the history of aesthetics. There is no indication that Aristoxenean philosophy includes anything like Plato's natural correspondence between word, pitch, and rhythmic duration. On the contrary, in Aristoxenus each of those elements is treated as conceptually distinct and analysed according to principles which are expressly figured as unique to the relevant area of study. In place of Plato's natural unity between the poetic elements, we find in Aristoxenus a new model based on successively hierarchical stages of atomistic σύνθεσις. Language, rhythm, and melody are all composed of indivisible elements – the note, the letter, and the 'primary time' – each of which is an expressly phenomenological event, an incidence of sound perceived in time by the ἀκοή. All three elements can be built up into units such as linguistically intelligible words or harmonically intelligible scalar units. These units can then be combined with one another into meaningfully expressive superstructures, as when words form a sentence or notes are strung together into a melody. Finally, such superstructures may be combined with one another in a μίξις so that they all depict the same referent. But it is the job of the τεχνίτης to accomplish this final, meta–σύνθεσις and make sure that the sub–συνθέσεις of rhythm, language, and melody correspond to one another as parts of a communicative whole. Like his teacher Aristotle, Aristoxenus does not posit a natural universal order which makes all three elements work together but instead views that order as imposed from outside by a human agent where it might not otherwise come into being. For Aristoxenus, the elements of music do not naturally gravitate towards the coherent union that can be imposed upon them by the human mind. This is because each of them is in essence purely sensory, a simple perceptual event which occurs when a given syllable strikes the ear at a particular pitch for a particular amount of time. Such events may be analysed, judged, and arranged according to the compositional plan conceived by a given individual, but in themselves they are always and irreducibly φαινόμενα.

This theory of musical composition, the terms in which it is framed, and the implications it has for the semiotics of music, will do much to shape the Hellenistic–era debates which the second half of this dissertation will discuss. In particular, the σύνθεσις model will prove a powerful tool for later critics to understand just what it is that composers do when they put music and words together in an artistic composition. Whatever their stance may be as regards the questions how and whether musical sound can be said to communicate or depict, each of the theorists to whom we now turn will basically accept as a first premise the idea – rooted in Plato's tripartite definition of song, but altered by Aristotelian aspectuality and then filtered through Aristoxenean phenomenalism – that poets are in the business of arranging sounds in three distinct ways. For the Stoic Diogenes of Babylon, the Euphonists with their Peripatetic and Stoic influences, and even for the Epicurean Philodemus, what we experience when we hear a poem sung is three conceptually distinct things wrapped up into a single perceptual experience – word, rhythm, and melody united into one sound. The task for each of these thinkers is then to define just what it is that happens to us when we hear such a sound, and which of the three elements is responsible for which aspects of our experience. All these theorists accept that, when we listen to words with music, we have an emotional response which might influence or direct our actions. For Diogenes, this response is a result of the fact that Plato's ἦθος theory still essentially holds good: the whole unified composition conveys a representation of some inner emotional state which our souls then internalise as part of their own experience. Diogenes, like Aristoxenus, must therefore find a way to describe this representational structure in the terms dictated by his own intellectual framework, which for the scholarch means articulating how musical sound can be understood as part of the universe of rational and influential perceptions that populate Stoic epistemology and ethics. Philodemus, on the other hand, must enforce the partitions between text and melody more rigidly, finding a way to talk about semiotic communication that limits its rational effects upon action to the linguistic sphere. This he must do not only to defend Epicurean doctrine in contradistinction to Diogenes' Stoicism, but also to refute the Euphonists, who would make poetry's sensory elements into the whole of the art, and so ascribe to the pure experience of sound a potential for influencing human action that the rationalist Philodemus cannot accept. In all of this the respective roles of διάνοια and ἀκοή will be objects of hot contention. The adoption, modification, or rejection of Plato's ethical representation in music will now, under the influence of Aristotle–via–Aristoxenus, come to turn upon how different theorists ascribe the various parts of our musical experience to rational engagement as contrasted with pure physical sensation. In light of the foregoing chapters, we now have the resources to understand the terms and stakes of these debates. Developing that understanding will be the point of what follows.

Part II

Introduction

Philodemus and his Critics

The second half of this thesis is about the arcane, challenging, and quite radical theories of musical poetics which we find very imperfectly preserved in quotation by Philodemus of Gadara. Those theories come down to us on charred and mangled papyri from the ashes of Herculaneum; since their rediscovery between 1752 and 1754 efforts have been made to reconstruct their text. These efforts have been by turns dramatic and innovative, counterproductive and ingenious.[257] *On Poems* 1, 3, and 4, and *On Music* 4, on which I focus almost exclusively here, have been available since the 2000s in very impressive critical editions with English and French translation, respectively.[258] Books 2 and 5 of *On Poems* can be more difficult to access, but they too are not beyond reach: Mangoni's (1993) edition and Italian translation of Book 5 can now be supplemented with an English translation by David Armstrong.[259] Book 2 awaits a new edition by Janko, and is currently best gleaned from the fragments of *P.Herc.* 1676, 1074b, 1081b, and 994 available in Sbordone (1983); Janko's (2000) 462–93 concordances are a useful reference for placing fragments in their proper books (although this work will likely be revised in his forthcoming edition). Footnotes in Janko (2000) and (2011) offer new and updated readings of many fragments from Book 2, and I will cite these throughout with indications of the places where I do so.

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[257] See Janko (2000) 11–26, (2011) 5–16, 19–49, 141–8, 166–92; Delattre (2004) lvi–lxxxv, xcvii–cvii.

[258] These are Janko (2000) for *Po*. 1, (2011) for *Po*. 3–4; Delattre (2004) for *Mus* 4. For a history of previous editions (by e.g. Theodor Gomperz, August Hausrath, Christian Jensen, Francesco Sbordone, Maria Nardelli, and Cecilia Mangoni) see Janko (2000) 27–47, (2011) 17–18, 148–65; Delattre (2004) lxxxvi–xcvii.

[259] Armstrong (1995).

These are the extremely troublesome texts with which I will deal in Part II; my project here is not papyrological but interpretative. In a very few cases my analysis has led me to suggest a new reading; otherwise I accept the text of the editions just named or import readings from other editors as specified. Since what I am interested in is a broad–strokes picture of each theorist's major points as they pertain to musical expression, I have tended to use relatively well–preserved fragments, or to look for claims which are repeated multiple times for emphasis. The approach is designed to mine these valuable sources for as much as they can tell us, without putting too much weight on the precise language of smaller claims, as these are the most vulnerable to being rendered inaccessible by textual damage. Like the musical documents, these are precious texts containing evidence which we do not find elsewhere; the task of interpreting them is necessarily speculative in some degree, but this cannot prevent us from attempting cautiously to learn what they have to teach. By corroborating what we find in them with related sources, and contextualising them with what we know about the philosophical commitments of Philodemus and the authors he discusses, we can arrive at plausible sketches of how those authors responded to the musicological and philosophical traditions examined in Part I. By doing so, we will see how ἦθος theory, having been complicated and reworked in the Peripatetic tradition, received both forceful defences and savage critiques from the careful thinkers of the Hellenistic schools.

Chapter IV

Ἦθος Gets an Update: Diogenes of Babylon

Diogenes of Babylon, the fifth scholarch of the Stoa, is an indispensable witness to Stoic musicology – a subject about which we would know very little without him. As it is, we have only Philodemus' hostile report in *De Musica* Book 4 to go on, but with some digging we can get quite a bit out of even those fragments. Broadly speaking, Diogenes accepted ἦθος theory without apology; his is a full–throated endorsement of the thesis that music can and does manifest psychological dispositions and communicate them to the listener. Plato is therefore an important or even a central authority for Diogenes. We can see the Stoic making use of the *Laws*, and in general what he says is quite consistent with the outlines of Platonic ἦθος and with the commonplaces that follow on from it – modal intonation as a pedagogical tool, melodic trends as indicators for state formation, and so on. But Diogenes is not just offering warmed–over truisms about musical affect. He read widely and engaged with the ideas of opponents and colleagues alike, and so he was aware of the philosophical challenges to musical ἦθος that had been raised by Epicureans and others like the author of the Hibeh papyrus. He recognised, too, that Aristoxenus and his followers had made contributions to musical scholarship of which Plato had known nothing and which needed now to be incorporated into any robust study of music. Consequently, we can see him working in the *De Musica* to articulate ἦθος theory in terms that would have been both acceptable in the contentious intellectual culture of the Hellenistic schools, and consistent with the highly sophisticated systems of psychology, epistemology, and physics which had developed within his own Stoic tradition. The result is a theory of musical expression which in fact goes further than Plato's, in that it sees musical motion as not only representative of but somehow essentially identical with the movements of the soul. Music for Diogenes does not just speak to the soul; it actually invades the soul and alters its configuration, producing in listeners an ineluctable emotional experience and reliably generating a consequent set of actions. We shall now see how Diogenes arrived at this quite extreme set of theses about music by engaging closely with the theories of his predecessors. Diogenes' robust and distinctly Stoic philosophy of music is a picture of how traditional theories of musical affect found expression in the 2nd century BC. It therefore offers a point of reference against which to understand the more unorthodox ideas about sound and meaning which we will find recorded by Philodemus in later chapters.

I. Plato and Then Some: Diogenes goes beyond μίμησις

It has long been noted that Diogenes adopts the core structure of Plato's ἦθος theory.[260] Music for the scholarch is naturally pleasurable,[261] and it is able to move (κινεῖν) our emotions and convey to the soul certain dispositions which are constitutive of character.[262] Because of these two facts it can and should be used in education as a method of accustoming us to the right kinds of likes and dislikes.[263] Children are naturally susceptible to this kind of education before they are fully capable of using reason themselves.[264] Diogenes does not, so far as we can see, explicitly make the claim that when music is used this way it conforms to an all–encompassing λόγος that pervades the universe and the human soul. However, Anthony Long has presented good evidence that such a λόγος, which is certainly an immanent feature of the universe according to mainline Stoic thought, was in fact often expressed by Stoics in terms of a musical harmony whose structure should be mirrored in the ordered soul.[265] It seems very likely that Diogenes would have fit his musical philosophy within such a cosmic system as well. If so then here, too, he would be in line with Plato's beliefs about the relationships between music, soul, and λόγος.

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[260] See especially Phld. *Mus*. 4. LI.1–LII.3 with Pl. *Lg*. 669b5–e4, 802b1–c4; Rispoli (1974) 62–4; Delattre (2007) 82–3 with notes; Woodward (2010) 236–45.

[261] Phld. *Mus*. 4.XVI.13–XVII.11.

[262] Phld. *Mus*. 4.XV.1–8, XX.1–8.

[263] Phld. *Mus*. 4.XVI.1–13; Delattre (2007) 332 cites parallels from Plato including *Lg*. 653b2–c4, 654b11–c8; *R*. 401e1–2a4. See further Delattre (1991) 5–17.

[264] Phld. *Mus*. 4.XVIII.

But Diogenes is more extreme than Plato on two important points. One of these points has been stressed by both Woodward (2010) 240–4 and Barker (2001) 353: Diogenes rejects μίμησις as a way of talking about the relationship between ethical states in the human soul and types of melodic motion.[266] The movement of a tune, he thinks, is not just a reproduction, approximation, or stylised evocation of the soul's movement in a given emotional or ethical attitude: those two motions are actually identical. And so it is valid to describe songs as actually having ethical qualities: Different songs (μέλη), claims Diogenes, are 'some of them magnificent, some temperate and brave, some others fearful, unrestrained, and entirely shameful, since music gives rise to such dispositions.'[267] If we assume that Diogenes associated these characteristics with the modes as Plato did (even if the association was more loose and fluid for him than it was for Plato), then this brief statement can be unfolded into a number of claims:

1a) Songs in a given mode have determinable ethical properties, because

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[265] See Long (1991) 99–115 with esp. Chrysippus *apud* D.L. 7.88.2–8 (= *SVF* 3.4, pp. 3.30–4.7). Cf. Woodward (2010) 242; Scade (2017) 198–200, 207–8. On how Diogenes' musical philosophy can be situated within the context of his Stoicism see Laurand (2014) 198–214.

[266] See also West (1992) 250; Scade (2017) 201–2.

[267] Phld. *Mus*. 4.XIX.45–XX.6: [τὰ μὲν] μ[εγαλοπρε]πῆ, τὰ δὲ σωφρονι[κ]ὰ [καὶ] ἀνδρεῖα, τ[ὰ] δ[ὲ δειλὰ] καὶ̣ ἀκόλαστα καὶ ὅλ[ως] α[ἰ]σχρὰ προσαγορευόντων, ὡς συνεπιφερούσης τὰς τοιαύτας διαθέσεις. Cf. Phld. *Mus*. 4.XIX.1–5, where music is said to give rise to our own virtues because 'it has certain virtues which are akin to them' (ὡς ἔχουσά τινας ἀ̣[ρετ]ὰ̣ς συγγενεῖς). In some sense Diogenes may be compared here with Schopenhauer, who insists that music is not a representation of Ideas (of 'things as they are') but contains in itself the closest possible thing to the real essence of emotion: 'it does not express this or that individual or particular joy, this or that sorrow or pain or horror or exaltation or cheerfulness or peace of mind, but rather joy, sorrow, pain, horror, exaltation, cheerfulness and peace of mind as such in *themselves*, abstractly.' See Norman, Welchman, and Janaway (2011) 251–7 289 with Alperson (1981); Ferrara (1996).

1b) a given mode dictates a given kind of melodic motion which songs written in that mode tend to have, besides which

2a) souls also exhibit certain kinds of habitual motion, and

2b) to exhibit habitually a certain kind of affective motion (e.g. towards the noble and away from shame) is just what it is to possess an ethical characteristic (e.g. bravery), besides which

3) the habitual motions exhibited by songs in a given mode (e.g. the Dorian) are identical with those exhibited by a soul with a given ethical characteristic (e.g. bravery), and so

Conclusion) modes and the songs written in them have all the requisite features needed to be described as having, not just imitating or representing, ethical characteristics of their own.

Two related things are remarkable about this argument. One is that it must define having an ethical state simply as possessing the relevant psychological or melodic motion, without reference to the actions typically produced by that motion. Dorian melodies may move as brave souls do, but they certainly do not charge into battle of their own accord as do those human individuals who possess brave souls. For a Dorian song to be meaningfully called ‘brave,’ then, we must assume that bravery is nothing more than the property of habitually being drawn towards some ends and repulsed from others, without necessarily doing anything about it. And yet the second remarkable thing is that Diogenes justifies his claim with the evidence that ‘music gives rise to such dispositions,’ presumably meaning we can tell that music is ethical because it generates ethical states in those who listen to it. If so, then the proof is in the pudding: we will be able to tell whether a child raised listening to the Dorian mode has become brave by putting him on the battlefield and seeing whether he fights more valiantly than a child whose parents indulged him with the Lydian. Indeed, Philodemus attempts at one point to refute Diogenes on almost exactly those terms: martial music, argues the Epicurean, does not actually make people fight courageously on the battlefield if they would not already have done so because of their pre–existing good character.[268] So Diogenes most likely thinks that those who listen to brave music not only become internally brave, but act in observably brave ways and thus demonstrate the effects of their musical upbringing. But if music is itself brave, and if action is therefore not an essential part of what defines ethical qualities for Diogenes, one may legitimiately ask how he can expect brave music to produce brave actions in its listeners.

The answer may lie in Diogenes' claim that music 'gives rise to' ethical dispositions. The verb he uses is συνεπιφέρειν. Delattre (2007) 335 points out that this is a verb which, in Aristotelian logic, '*s'applique à un terme qui porte en lui–même certaines conséquences*.'[269] If that is the right way to understand the term here, it means that Diogenes is positing a direct causal relationship between hearing a piece of music and one of two things. He may think that hearing a song inevitably causes one to possess the ethical quality which that song possesses, so that hearing a Dorian tune automatically makes one brave. But συνεπιφέρειν is a feminine participle here, meaning that its subject is probably μουσική in general, not an individual song. So it is more likely that Diogenes thinks one song will automatically produce, not the ethical state associated with its mode, but the emotional response which, if it becomes habitual, will eventually constitute that ethical state. If we listen to lots of songs which produce that emotion, though, then sure enough we will eventually have that ethical characteristic – on this reading, that is what it would mean for μουσική in general to be 'giving rise automatically' (συνεπιφερούσης) to our 'dispositions' (διαθέσεις).

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[268] Phld. *Mus.* 4.LXVIII.33–40, LXIX.7–12.

[269] Cf. Arist. *Top.* 144b17, 154b23; [Arist.] *Pr.* 152b7.

We can imagine plausibly enough how this might work. Ethical motions, we might say, are emotional: if I am brave, it is fear that pushes me away from what is shameful and desire or pleasure which pulls me towards glorious victory. And so if a melody moves in an ethically characterised way, then hearing it means also having that same motion in your soul and so having that emotional experience. Tunes on this model do not present emotional and ethical characteristics in others for us to contemplate or even empathise with as something outside of ourselves. Instead they simply enter into us and produce the emotion which is the motion of this particular song. When we hear a tune, our soul can be relied upon to move with it, and so in some sense hearing the tune is having the emotion, or at least the two are linked with such a tight bond of causation as to be inseparable. Plato made melody into a kind of iconic sign, something which was not itself ethical experience but in which we could recognise salient features of ethical experience and so respond by having analogous experiences of our own. For Diogenes, a melody simply is an emotion in every important sense of the term, and so (we might posit) hearing a melody inevitably means having that emotion. It is the difference between my showing you a picture of your lover so that you feel in some ways as you might when he is present, and my actually bringing him into the room so that you immediately and by definition have the full experience of being in the presence of the one you love.

Over time these musically generated emotional experiences could be counted upon to engrain themselves, so that the Dorian mode inevitably transfers its own ethical characteristics to those who listen to it habitually. If those characteristics can in turn be counted upon to generate actions – if brave people reliably act in brave ways – then we can expect people to exhibit behavioural patterns directly consequent upon the types of music they listen to. What I am suggesting is that Diogenes may have imagined a long but inevitable chain of causation looking something like this:

1) A mode (e.g. Lydian) has an ethical quality (e.g. lack of restraint).

2) A given song in that mode (e.g. the *Orestes* chorus from Pap. Vienna G 2315) moves in ways characteristic of the emotions relevant to that ethical quality (e.g. it jumps about frenetically as souls do when they are feeling flighty and full of anxiety).

3) The listener hears that song and his soul moves in that way, meaning that he feels the emotion that is in the song.

4) With repeated exposure, the listener gets used to feeling the relevant emotion at the slightest provocation, and so he himself takes on the (lack of restraint/courage/temperance) characteristic of the (Lydian/Dorian/Phrygian) mode.

5) That characteristic is generative of certain actions consistent with it (e.g. people lacking self–restraint will panic and flee in times of danger).

This tentative reconstruction of the Stoic's theory is broadly consistent with the interpretations of Diogenes most recently advanced by Barker, Woodward, and Scade. But it raises a few interrelated questions. First of all, how are we to account for the process described in 4)? That is, why should feeling a certain way many times while listening to music cause us to feel that way habitually even after we finish listening? Moreover, are we justified in reading the word συνεπιφέρειν as 'to necessarily cause'? When Aristotle used it in that way, he was describing the inescapable causation that leads from one logical proposition to another: if something is a healthy horse, then that something has four legs. But Diogenes is talking about the progress from hearing music to developing ethical states – perhaps music is a factor in shaping the sort of people that its listeners become over time, but can Dorian music be said to make its listeners brave as certainly as the conclusion of a valid argument emerges out of its premises? To answer these questions we must explore the relationship between Diogenes and Aristotle on some of the finer points of musical psychology, asking whether they are speaking on and with the same terms.

II. Tendencies and Actions, Music and the Soul: Aristotle and Diogenes on musical psychology

a. Features of the soul: Diogenes' concessions to Aristotelian psychology

It has been argued that Stoics before Panaetius and Posidonius were hostile towards Aristotle. Indeed, with the exception of some selections from Plato cherry–picked to support the Stoic worldview, the early scholarchs are supposed to have been quite dismissive of both the Academy and the Lyceum.[270] But the idea that Aristotle nevertheless had some sort of influence upon Stoic thought as early as Chrysippus, though it has been contested, is not deeply controversial.[271] Diogenes, for his part, wrote during an important transitional period in the history of Stoicism, during which the other Socratics ceased to be regarded as enemies of the Stoa. Diogenes is one of the first philosophers for whom Aristotle and Plato are at least potentially respected authorities rather than disdained rivals.[272] We have already seen that Diogenes largely accepts Plato's musical psychology before expanding upon it, highlighting his continuity with the Academy rather than insisting upon his differences with it.[273] It is therefore possible that Diogenes would have anticipated Posidonius in engaging with Aristotelian thought and incorporating it into his own Stoic project. There is one passage in the *De Musica* where it seems as if he might be doing so. This is Phld. *Mus.* 4.LXXXIX.29–40

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[270] See Frede (1999) 774–8, 783–4; Sedley (2003b) 20–4; Gill (2006) 212–6; Ju (2013) 95–6. On early Stoic acceptance and even reverence of Socrates and its marked differences from the account of the philosopher found in Plato, see Long (2004) 10–11.

[271] See Hahm (1991) 309 and Sakezles (2007) 225 against Sandbach (1985).

[272] On Diogenes' Stoic orthodoxy and additions or alterations to it see Nussbaum (1993) 115–16; Tieleman (2003) 243–4 with n. 118; Blank (2011) 246. Obbink and Vander Waerdt (1991) 357–8 argue that Diogenes' innovations were aimed precisely at incorporating the views of other Socratics such as Plato into Stoic thought, which had previously been hostile to them — see further Delattre (1991) 3, 15–6.

[273] For more on Diogenes' tendency to incorporate rather than reject Plato's views, see Schäfer (1936) 180–9.

(hereafter **T**), where Philodemus preserves a relatively detailed account of the path which the scholarch charted from hearing music to making choices and taking on ethical characteristics. Here is the passage – a close examination of its terminology will both clarify Diogenes' theory of musical affect and reveal potential connections between it and that of Aristotle.

> κἂν βούληται̣ [ταύ–
> την] ὁρμὰς ἐμποιεῖν, καὶ
> πρ[οαιρ]έσεις εἶναι πάθη τι–
> νὰ με]τὰ δυνάμεως, ὅτι πο–
> τὲ τα]ὐ̣τ̣ό ἐστι. Τὸ δ᾽ ἀρχὴν εἶ–
> ναι] τοῦ λαβεῖν τὰς̣ προαι–
> ρέ]σ̣εις ταύτας καὶ τὰς δυνά–
> μ]εις τὰ πάθη, πρὸς ἀνδρεί–
> α]ν μὲν θάρσος, ⟦σ⟧ πρὸς σω–
> φροσύνην δὲ αἰσχύνην
> κ]αὶ κόσμον, ἄλλα δὲ πρὸς
> ἄ]λ̣λα (. . .).
>
> He (i.e. Diogenes) – even if he wants (to claim that) 'this (i.e. 'music') implants impulses in (the soul)' – will also (sc. concede that) 'deliberate actions are certain affective states accompanied by capacity, because sometimes that is the same thing.[274] And the beginning of our acquiring these deliberate actions and the capacities is the affective states – (so) confidence (leads) towards courage, shame and propriety towards temperance, and other (affections) towards other (virtues) (. . .).'[275]

The key initial concept is ὁρμή, impulse or appetition. Music begins to work in the soul by altering its ὁρμαί: songs can 'implant impulses within' the soul (ὁρμὰς ἐμποιεῖν) and 'turn' the soul 'from one impulse to another' (ἀποστρέφειν πρὸ̣[ς] ἄλλην ὁρμὴν ἀπ' ἄλλη[ς]).[276] Ὁρμή is a quite general term for 'impulse'; it is an internal motivation and typically drives the entity that experiences it towards a particular goal by means of pleasure, or drives that entity away from something by means of pain (this latter experience may also be called ἀφορμή). Diogenes shows that he endorses this hedonic account of impulse at Phld. *Mus*. 4.XXV.1–3, where he refers to ‘ὁρμαί and the accompanying experiences of pleasure and pains which occur within them.’[277] This is how good music can ensure that listeners pursue the proper ends, ‘for the most important thing with regard to ὁρμή towards noble things,’ claims Diogenes, ‘is to enjoy what one should and love what one should.’[278] Cultivating the appropriate kinds of enjoyments and rejections is a central prerequisite of virtue, and an end towards which music education ought to be directed, for both Plato and Aristotle – Diogenes' language here is reminiscent of both philosophers.[279] On the face of it, then, Diogenes seems to be offering an account of music's pedagogical value for virtue that is at least highly consistent with Aristotle.

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[274] That is, ὁρμαί, πάθη τινὰ μετὰ δυνάμεως, and προαιρέσεις can amount to the same thing when considered in their necessary causal interrelation according to Stoic determinism – for an exposition of which, see below, pp. 139–44. Cf. Delattre (2007) 401 n. 5.

[275] Philodemus wishes to represent everything after 'deliberate actions' as a concession on Diogenes' part (συγ[χωρήσει]ν, Phld. *Mus.* 4.LXXXIX.28–9), as if an endorsement of affective ethics were incompatible with the Stoic's other claim that music implants impulses. In fact, as I show here, the two views do not compromise but rather mutually reinforce one another in Diogenes' theory. See also Phld. *Mus.* 4.XIV.4–10.

[276] See Phld. *Mus.* 4.XIV.4–5, XXXVI.10–4, LXXXIX.29–33.

But in itself, ὁρμή is not a uniquely Aristotelian concept. It was already an important term in Stoic ethics before Diogenes: Chrysippus defined it as the ‘first motion of the soul' (πρώτη . . . ψυχῆς κίνησις), an appetitive impulse that distinguishes animals from plants and other lower life forms.[280] Different types of ὁρμή could be further disambiguated by a number of qualifiers – in particular, λογικὴ ὁρμή was a motion of the human mind towards some action, as distinct from the irrational impulse of lower animals.[281] Ὁρμή is not a key concept in the ethical works of Aristotle. But the word does appear there too, and there too it describes a broad set of impulses that may be further characterised as logical or illogical.[282] For Diogenes to use the word, then, is for him to refer quite generally to an appetitive impulse without necessarily invoking an Aristotelian framework.

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[277] Τὰς ὁρ̣[μὰς] καὶ τὰ μεθ' ἡδονῆς καὶ [λύ]πης ἐν ταύτῃ̣[ι γινόμενα]. Cf. CXIV.36–7.
[278] Phld. *Mus*. 4.XVI.3–7.
[279] See Arist. *EE* 1220b7–10; *EN* 1104b11; *Pol*. 1304a15; Delattre (2007) 332; and above, p. 125 with n. 263.
[280] Chrysipp. *apud* Philo *Quod Deus sit Immut.* 35 (= *SVF* 2.458, p. 150.22–5); Sakezles (2007) 239.
[281] See e.g. Stob. *Ecl*. 2.86.17, 87.14 Wachsmuth (= *SVF* 3.169, p.40.4–16, 173, p.41.26–33).
[282] See Arist. *EE* 1247b18–20.

Things become more nuanced, however, when Diogenes begins to suggest how exactly music manages to instill ὁρμαί, and how those ὁρμαί might alter a listener's ethical state. For one thing, ὁρμαί are associated with πάθη: experiencing an emotion is what pushes us towards or away from some goal. It is already of note that, since Diogenes endorses musical education and does not think it necessarily leads to unrestrained or overblown emotion, he seems here to be using the word πάθη not in the usual Stoic sense of 'excessive or vicious passion' but rather, like Aristotle, in the broader sense of 'emotion' or 'affective state' (including praiseworthy states such as confidence).[283] The real keys to Diogenes' assertion, though, are the terms προαίρεσις and δύναμις.[284] According to Diogenes, undergoing an emotional affection (πάθος) is the beginning of some process at the end of which we make choices (προαιρέσεις) and develop capacities (δυνάμεις). Aristotle used both of these words frequently in his psychological writing, and he used them in precise and idiosyncratic ways. Examining those meanings will show how close they are to the meanings attributed to them by Diogenes, as well as helping to clarify what the Stoic is saying about how music stimulates action and transfers its ethical characteristics to the listener.

In both of Aristotle's ethical texts, προαίρεσις is a deliberative choice between actions as a means of accomplishing an end which we desire.[285] With this much the Stoics would have broadly agreed: Stoic προαίρεσις also describes a deliberate action undertaken by a conscious agent.[286] On the most basic level, then, Diogenes is saying that we undertake deliberate action when our emotional state is accompanied by δύναμις. This is a polyvalent term with a number of important usages in late Classical and Hellenistic philosophy, but when used in relation to emotion and the soul it has the potential to sound a distinctly Aristotelian note. I will argue below (pp. 144–50) that Diogenes elsewhere uses the word in a different way which also emerges from the Peripatetic tradition in that it comes from Aristoxenus. Used in the context of psychology and ethics as it is in **T**, though, δύναμις evokes Aristotle himself. This is especially true because Diogenes uses the word in the plural, which is a break from earlier Stoic usage: Chrysippus maintained quite firmly that the soul, being one, has only one δύναμις (in the sense of its having only one proper aim and function, which is the achievement of virtue).[287] By contrast, we have already seen in Chapter II that Aristotle allowed for multiple δυνάμεις in the soul, in the sense that the soul has multiple 'functions' or 'capacities.'[288] This is why Delattre (2007) 28 n. 3 suggests that the best way to read Diogenes' use of the word here is with reference to Aristotle's *Nicomachean Ethics*, where a δύναμις is a 'capacity' or 'potential' for a particular emotional state. 'Δυνάμεις are those features by which we are said to be such as to experience certain emotions – for example, to be capable of becoming angry or feeling pain or pity.'[289] This is close to the use of δύναμις to denote a 'soul function': Aristotle is talking not about physically separable parts of the soul which become angry or afraid, but about certain features of the soul which make it capable of being so affected.[290]

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[283] On πάθη as 'vicious motivations' see Brennan (1998) 34.

[284] The first of these terms, poorly preserved here, is confirmed in the parallel at column XIV and particularly at XIV.7.

[285] See esp. Arist. *EN* 1113b3–5; *EE* 1226a7–b15; Kenny (1979) 75–80; Broadie (1991) 237–42; Meyer (2006) 139 (although it is somewhat misleading for Meyer to call προαίρεσις a desire, since Aristotle is quite clear that it is not a βούλησις although it seems to be similar to one: *EN* 1111b19–20); Sakezles (2007) 231–2. On προ– as 'between' rather than 'before' see Price (2016) 437–8 *contra* e.g. Joachim (1951) 100.

[286] On the details of προαίρεσις in Stoicism see further below, pp. 139–41 with esp. Stob. *Ecl.* 2.87.14 Wachsmuth (= *SVF* 3.173, p. 41.27–33).

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[287] See Galen *PHP* 4.1, 5.5 (= *SVF* 3.257, p. 61.32–9, 461 p. 112.14–23): μίαν ἔφησεν (sc. ὁ Χρύσιππος) εἶναι δύναμιν τῆς ψυχῆς. The context of this claim must be Chrysippus' belief that virtue (which is the soul's proper aim) is one: see e.g. Plu. *De Virt. Mor.* 441b; Menedemus and Ariston of Chios *apud* Plu. *De Virt. Mor.* 440e–41a; D.L. 7.94; Clement *Stromata* 4.28.1; Stobaeus *Ecl.* 2. 63.6 W (≈ *SVF* 1.375, p. 86.9–17, 3.76, p. 19.22–33, 221, p. 52.7–9, 280, p. 69.4–6); Plu. *Quomodo Quis Suos in Virtute Sentiat Profectus* 75c7–f3 (= *FDS* 1233); Long and Sedley (1987) 2.383–4; Cooper (1998) 253–5; Brouwer (2007) 289–311; Ju (2007) 107–8; Gill (2009) 413–4.

[288] Obbink and Vander Waedt (1991) 355–6 n. 4 have already remarked that Diogenes anticipated Panaetius and Posidonius by allowing for the division of the soul into parts (μέρη): see Phld. *Mus.* 4.LXXVI.28–30, LXXVII.40–3, LXXVIII.3–5.

[289] *EN* 1105b20–4: δυνάμεις δὲ καθ᾽ ἃς παθητικοὶ τούτων λεγόμεθα, οἷον καθ᾽ ἃς δυνατοὶ ὀργισθῆναι ἢ λυπηθῆναι ἢ ἐλεῆσαι.

But Diogenes cannot be using the world in exactly this way, because he cannot be talking *tout court* about 'capacities' in the soul. That is, it cannot be the case that once music affects us in a certain way, we then become able to be affected in that way, since presumably we must have been able to be so affected when we heard the music that affected us. Moreover, it is difficult to see how simply being capable of feeling confident would lead us reliably to a certain kind of brave προαίρεσις – a listener has to actually be confident, not just to be able to become confident, before he makes the deliberative choices associated with bravery. Diogenes, then, seems to be using δύναμις here in a slightly stronger sense than the one suggested by *EN* 1105b20–4, to mean a developed 'aptitude' or even 'tendency.' We can find Aristotle using the word in this sense at *EE* 1220b16–8, where he writes that 'I call δυνάμεις those features according to which people are given names associated with the πάθη they manifest, such as "choleric," "unfeeling," "lustful," "shy," or "shameless."'[291] If we understand Diogenes to be using δύναμις in this way also, then the Stoic's claim becomes more cogent: he is arguing that music causes us to experience emotions, which then lead us both to make choices attendant upon those emotions, and to develop a tendency to feel those emotions habitually.

When δύναμις is read in this way, the meaning of **T** begins to fit with the rest of Diogenes' claims, which could now be summarised as follows. Music is ethically characterised because it moves in the way that souls do when they experience certain emotions; hearing music therefore causes one's soul to move in the same way and so, at least during the time when one is listening, one experiences the relevant emotion. These emotions are such as to push us towards certain ends and away from others – for instance, to desire victory and shun dishonour. When so pushed, we make certain choices, προαιρέσεις, and if we do so repeatedly then our actions reinforce the pattern of emotional response and decision–making that led us to act in the first place. Thus we develop a characterological tendency to be in a certain emotional state by undergoing that emotional state itself: in lines 33–6 of **T**, 'the beginning of our acquiring these deliberate actions and the capacities is the affective states.' That is, because music causes us to enter certain emotional states and make consequent choices while we are listening to it, repeated exposure to such music develops in us a tendency to experience the relevant emotional state even after we have stopped listening. The missing Aristotelian term here is ἔθος, the habit we develop over time via repeated action. But Diogenes asserts later on that music does indeed work by changing ἔθος: when we undergo musical training which alters our affective dispositions, 'there is no longer any space left for the opposite habits.'[292] And in **T** itself, Diogenes illustrates the effects of music upon the soul by giving two examples of emotional affections and the ethical states into which they will develop given time: confidence (θάρσος) leads towards courage (ἀνδρεία); propriety (κόσμος) and shame (αἰσχύνη) lead towards temperance (σωφροσύνη).

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[290] See above, pp. 67–8 with n. 156.

[291] Λέγω δὲ [τὰς] δυνάμεις καθ' ἃς λέγονται κατὰ τὰ πάθη οἱ ἐνεργοῦντες, οἷον ὀργίλος ἀνάλγητος ἐρωτικὸς αἰσχυντηλὸς ἀναίσχυντος.

Delattre (2007) 331 notes that Aristotle makes use of the same two examples, ἀνδρεία and σωφροσύνη, at *EN* 1104a18–25. It is worth commenting on this passage further. What Aristotle says is that one may develop or destroy one's virtues by observing or overshooting the mean towards which those virtues aim. For Aristotle this means that 'one becomes cowardly by fleeing and fearing everything and enduring nothing, and rash by fearing nothing at all and rushing into everything.'[293] Similarly, 'one becomes immoderate by indulging every pleasure and resisting none, and insensitive by fleeing every pleasure, as uncultivated people do.'[294] In both cases, then, one develops an ethical characteristic by pursuing or avoiding the ends associated with it according to the dictates of pleasure and pain.[295] This account is quite close to that of Diogenes: emotionally desiderative states such as fear or confidence develop into ethical habits via repetition over time. In essence, Diogenes has simply inserted musical experience into Aristotle's account as the generator of emotion and motivator of actions. This allows us to make an important addition to the chain of musical causation that I outlined above (p. 131), expanding (using boldface type) upon the crucial step 4):

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[292] Phld. *Mus*. 4.XXXIII.1–15: οὐκέτι καταλείπεσ̣[θαι] χώραν τοῖς ἐναντίο̣ι̣[ς ἔ]θ̣εσ̣ιν. Perhaps Diogenes refrained from explicitly mentioning ἔθος in column LXXXIX because he was keen to insist that the initial emotional response to music, unlike the subsequent ethical state, was naturally spontaneous and therefore not the result of any developed habit or capacity: see Phld. *Mus*. 4.XVII.8–12, CXIV.36–40.

1) A mode (e.g. Lydian) has an ethical quality (e.g. lack of restraint).

2) A given song in that mode (e.g. the *Orestes* chorus from Pap. Vienna G 2315) moves in ways characteristic of the emotions relevant to that ethical quality (e.g. it jumps about frenetically as souls do when they are feeling flighty and full of anxiety).

3) The listener hears that song and his soul moves in that way, meaning that he feels the emotion that is in the song.

4a) When listening to that song and feeling that emotion, the listener is prompted to make certain choices (e.g. when I hear the *Orestes* song I might grab onto my friend for comfort, or run to a priest who can protect me from divine madness with a prophylactic prayer). These actions engrain in me a habitual tendency to feel the emotion that caused them, and so

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[293] Ὅ τε γὰρ πάντα φεύγων καὶ φοβούμενος καὶ μηδὲν ὑπομένων δειλὸς γίνεται, ὅ τε μηδὲν ὅλως φοβούμενος ἀλλὰ πρὸς πάντα βαδίζων θρασύς.

[294] Ὁ μὲν πάσης ἡδονῆς ἀπολαύων καὶ μηδεμιᾶς ἀπεχόμενος ἀκόλαστος, ὁ δὲ πᾶσαν φεύγων, ὥσπερ οἱ ἄγροικοι, ἀναίσθητός τις.

[295] For confidence and fear as emotional states in Aristotle see *EE* 1220b12–4.

4b) With repeated exposure, the listener gets used to feeling the relevant emotion **even when no longer listening to the relevant music**, and so he himself takes on the (lack of restraint/courage/temperance) characteristic of the (Lydian/Dorian/Phrygian) mode.

5) That characteristic is generative of certain actions consistent with it (e.g. people lacking self–restraint will panic and flee in times of danger).

The fact that this outline is consistent with Aristotle's views and employs uniquely Aristotelian concepts while simultaneously making sense of Diogenes' statements in the *De Musica* suggests that Diogenes made use of Aristotle's work more liberally than Stoics of his generation are usually assumed to have done. But that does not answer the second question I raised, namely whether a reading of συνεπιφέρειν from Aristotelian logic, with all the clockwork inevitability it applies, is really the right one for a theory of musical affect: is Diogenes saying that music can be counted upon, inevitably and without fail, to generate in its listeners the ethical actions and characteristics associated with its mode? The answer to these questions hinges not on similarities between Diogenes and Aristotle but on a few key differences, and on the distinctly Stoic notions of determinism and fate which are beind Diogenes' use of the term προαίρεσις.

b. Hearing music and making choices: How Stoic determinism changes things

Aristotle in his ethical writings makes a key distinction between ends and means: we desire ends according to our βούλησις, but we deliberate about means to those ends when performing προαίρεσις. Our desires are things we simply have before we begin to make choices, whereas our deliberations lead us to decisions about how to pursue those desires. Our choices are up to us (ἐφ' ἡμῖν) and thus προαίρεσις is a species of the voluntary (τὸ ἑκούσιον) so that, whatever choice we have made, it was in our power to make it differently:

to put it bluntly, Aristotle believes in free will.[296] Things are quite different in the early Stoa, where our evidence points towards a radical determinism according to which events are fated and predetermined by the universal λόγος. This cosmic structure of causal laws pervades the Stoic universe much like our modern laws of physics, dictating how bodies behave in space and in reaction to one another.[297] Since everything – including the mind and the soul – is a body according to the Stoics, this rationally ordered structure governs and determines everything that happens in the universe from its beginning to its end.[298]

In human ethics, the result of this view is to collapse the Aristotelian distinction between our desires, which we do not choose, and our means of pursuing or even of resisting those desires, which we do. It is still the case for Stoics that we are responsible for some actions rather than for others: there are events which come about because of us (δι᾽ ἡμᾶς) and events which do not.[299] And our προαιρέσεις do cause things to come about through us, meaning that we can be held accountable for our choices. But, crucially, this is not because we could have chosen otherwise. In fact, our choices are dictated to us by an unbroken causal chain beginning with our impulses. The things in the outside world affect us and cause us to have experiences, πάθη, which lead to ὁρμαί.[300] We have what Chrysippus calls ‘an impression on the soul’ (τύπωσις ἐν ψυχῇ) from the outside world – an experience of perceiving something – which then stimulates an impulse in us.[301] This impulse triggers mechanistically a set of responses which we experience as deliberation and choice: our desire leads us to an ‘actionable impulse’ (πρακτικὴ ὁρμή), of which one species is προαίρεσις. Desire is therefore not different than choice; rather, choice actually is a kind of desire when enacted according to principles of conscious deliberation. Thus Chrysippus, who described αἵρεσις as βούλησις ἐξ ἀναλογισμοῦ.[302] The decisions to which those deliberations lead us are ones for which we are responsible, but that is not because they are contingent in the sense that we could have made different ones. Rather, the thing that makes us responsible for our choices is something like what in modern terms we might call consciousness: when we deliberate, the rules of λόγος play out within our own minds as part of our experience, following logically on from the impulses which have been generated in us by what we see and feel in the world around us. Other things also act according to those rules, but their enactment is not part of our internal conscious experience: if the λόγος causes water particles to condense into clouds and fall down to the earth as rain, I am not responsible for that. But the same λόγος might cause the smell of steak to enter my nostrils, leading to my thought, ‘how delicious,’ and compelling me to enter the kitchen and ask for a bite as a logical next step.

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[296] See above, pp. 68–70 and *EN* 1111a22–2a17, 1113b11–4a23; Sakezles (2007) 232.

[297] See Plut. *Stoic. Rep.* 1049f–56d, 1056c2–4 with Scade (2017) 211–212 *et passim*. Cf. further D.L. 7.137.9–139.11; Plot. *Enn.* 6.1.26–7; Philo *De Opificio Mundi* 8.3–9.4 Cohn (≈ *SVF* 2.300, p. 111.1–7, 302, p. 111.18–23, 314 + 315, pp. 113.25–14.15). Further summary of the divine logic governing Stoic physics can be found in Kahn (1969) 168–171; Kerferd (1978) 251; Long and Sedley (1987) 1.271; Algra (2003) 165–170; White (2003) 124–152; Gourinat (2009) 49–51. See also Celkyte (2017) 95–96 on Stob. *Ecl.* 2.62.15–63.5 Wachsmuth (= *SVF* 3.278, p. 68.22–34).

[298] On Stoic corporealism see Boeri (2001) 726–50; Dodson–Robinson (2010) 47 with n. 8. I refrain here from calling the Stoics materialists (although many have done so: in addition to Dodson–Robinson see Gould (1970) 107–9; Bloch (1985) 48–52; Ramelli (2017) 3) because of the doubts raised by Gourinat (2009) esp. 61–2, 66–9. On the four Stoic 'incorporeals,' which do not exist but only 'subsist' as emergent properties or configurations of bodies, see below, p. 168 with n. 352, pp. 179–80.

[299] Alexander *de Fato* 181.13–2.20 (= *SVF* 2.979, p. 285.1–6.4); see further Sharples (1986) 267–8, 277–9; Frede (2003) 193–200; Ojennus (2018) 224–5.

The consequence of all this for Diogenes’ theory of musical experience is as follows. Melodies are one of the perceptual experiences, the πάθη, which lead to ὁρμαί and so set actions in motion. Like the rest of the world, tunes are arranged in logically comprenesible structures. Music is important because it has a kind of rational structure identical to that which dictates our actions as well. So to hear music is to have the πάθος, which generates the ὁρμή, which sets in motion the προαίρεσις, attendant upon the relevant ethical characteristic: hearing a Dorian tune means feeling compelled towards glory, which means acting to pursue glory and so beginning the process that will eventually instill bravery in the listener. It is therefore possible Diogenes does indeed think that music leads necessarily to dispositions – that it συνεπιφέρει in the Aristotelian sense, but not for Aristotelian reasons. Diogenes has accepted some features of Aristotle's psychology and ethics: notably, he has adopted the idea that the soul has multiple features or capacities that can become engrained as tendencies or predilections for a certain emotional state and so result in our having ethical characteristics. But the scholarch has imported these features of the Aristotelian Soul into a Stoic universe, so that the whole process of ethical acculturation through music takes place according to a series of rational and predetermined causal rules. Thus whereas tones and beats for Aristotle were inherently arational, a set of sounds waiting to be shaped into a rational form by the imposition of human reason, Diogenes can claim, like Plato, that music and harmony are themselves features of a logically structured universe to which ethical structure is not a foreign addition but the intrinsic and natural purpose for which such sounds exist. When we hear music, the rationally comprehensible ethical structures get fed into our souls and play out according to the λόγος, impelling us to feel, desire, and act as the music dictates.[303]

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[300] By some accounts, ὁρμή is itself a kind of πάθος, which would mean that the experience of having an impulse towards something is just what it feels like to be causally affected by the world in a certain way – See Gill (2005) 454.

[301] D.L. 7.50 (= *FDS* 255.14–23). See further Philo *Leg*. 1.30 (= *FDS* 299); Stob. *Ecl*. 2.86.17–87 Wachsmuth (= *SVF* 3.169, p. 40.1–16); Sakezles (2007) 238–41; Ojennus (2018) 226, 232–5.

[302] Stob. *Ecl*. 2.87.14 Wachsmuth (= *SVF* 3.173, p. 41.27–33).

One might well ask how, if this is the case, music could ever be a negative influence on the human soul. If music is structured according to λόγος, and λόγος dictates rational action, then surely the impulses and actions generated by music will be rational ones and so will lead to reasoned, laudable ethical caracteristics. And yet Diogenes does say that some tunes are ‘fearful, unrestrained, and entirely shameful.’ This is not a tension which Diogenes resolves in the extant fragments, but he would have been able to do so using basic principles of Stoic ethics. Ultimately, after all, the question ‘how can music ever generate censurable impulses?’ is a more pointed version of the larger question, ‘how can anyone do anything wrong if all actions are predetermined by a logically structured universe?’ The answer to both questions must lie in the fact that, though nothing can happen contrary to the rules of the λόγος, individuals can be impelled to act contrary to their nature (φύσις).[304] It is in the nature of a rock to fall towards the ground, but if I pick it up I can frustrate that nature without breaking the overarching rules of the universe within which both I and the rock operate. Similarly, it is in the nature of human souls that their conscious choices play out according to rational principles and logical inferences which lead them towards the good. But an influence such as bad advice or an unmeasured desire can cause those choices to deviate from their naturally rational path. In such cases our choices are still unfolding in our consciousness, so we can still be blamed for them, and they are still unfolding according to the λόγος which dictates why our choice follows on from our impulse, which follows on from the perception or encounter with the world that we have experienced. But the ends which we are pursuing may not be in our best interests or those of others, and so we may be acting contrary to our nature as rational pursuers of the good even as we behave according to rationally intelligible rules. The same could be said about morally censurable music in Diogenes’ theory: if I hear a histrionic Mixolydian tune, I might feel inescapably miserable and be forced into wailing and tearing out my hair by the inexorable logic of that tune’s structure as it enters my soul. But in doing so I have contravened my nature as a rational animal which pursues his own good, and so I should be set to rights with a bracing Dorian march as soon as possible.

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[303] See in support of this reading Diogenes' assertion at Phld. *Mus*. XIV.5–10 that πράξεις come about κατὰ προαίρεσιν, which comes right before his assertion that προαίρεσις is, at least in some cases, πάθος plus δύναμις. Cf. XLI.17–20, CXXI.24–7.

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[304] Plut. *Sto. Rep.* 1056d (= *SVF* 2.935, p. 268.28–31); Sharples (1986) 277; Bobzien (2005) 497–8.

We can now see that Diogenes' version of ἦθος theory, though it hearkens back to Plato's, is in fact more complex and more forcefully expressed than Plato's. The scholarch has made some concessions to Aristotelian psychology and ethics which lead him to describe the soul in different terms than his predecessors in the Stoa, but he has still placed that soul, and the music which it encounters, in a rationally constructed and causally determined Stoic universe. The result is that his fragments trace the outlines of a theory according to which melody does not simply communicate or express the human experience but actually is the human experience: hearing songs causes me to feel and act in predictable and ethically characterised ways just as do other influences such as logical argument or perceptual encounters with the natural world. When a well–trained soldier sees an enemy on the battlefield he thrills with confidence and bloodlust; the same thing happens, for Diogenes, when a young boy hears military anthems in the Dorian mode – indeed, that musical experience is a key part of the training that might turn such a boy into such a soldier. Yet there is still more to Diogenes' intellectual profile as a musical thinker than this: the Stoic not only has a thesis about how hearing melody compels us to act in certain ways and become certain people, but also undertakes to explain what that experience is like and why it affects us the way it does. To understand that explanation we must examine the use which Diogenes makes of another Peripatetic, Aristoxenus, and the advancements in harmonic science which Diogenes took into account as he adapted Plato's philosophy of musical affect.

III. Songs without Words: Aristoxenean echoes and the ἐπιστημονικὴ αἴσθησις

Diogenes had in common with Aristoxenus the belief that musical sound contained intelligible structures and was a fitting object of analytic thought. Philodemus quotes

Diogenes as saying that ‘there are definitions, distinctions, and demonstrations in harmonics’ – the point being that harmonic relationships can have an effect upon the mind, as proven by the fact that they are subject to critical evaluation (κριτική) and harmonic analysis (ἁρμονική), both of which presuppose logical operations and conscious reflection.[305] As has been pointed out, this constitutes an attempt to identify a scientific study of music according to Aristotelian criteria and using Aristotelian terminology. Since that is one of the central aims of the *Harmonics*, Brancacci (1996) 573–83 argues quite plausibly for Aristoxenean influence here.[306] What has been less fully recognised is that Aristoxenean thought also enabled Diogenes to show how listeners might directly perceive rational content in musical melody without any verbal articulation of that content. This Diogenes did by utilising an elaborate set of Stoic terms for various acts of cognition which already existed in his day. In particular he used an innovative phrase which has received some scholarly attention: ἐπιστημονικὴ αἴσθησις.

This quite remarkable phrase unites two mental operations which are supposed to be at opposite ends of the Stoic epistemological process whereby we progress from basic observations to stable scientific knowledge. To summarise: the Stoics believed that children were born with the natural potential to understand the world and its governing logic, but that they did not immediately do so upon birth. Instead, children must first receive sensory impressions – their αἴσθησις must present them with φαντασίαι. These φαντασίαι are (or at least can be) logically structured so that they convey to the child a world which is governed according to comprehensible principles.[307] A central question of Stoic epistemology then becomes whether or not we give ‘assent’ (συγκατάθεσις) to the information that our φαντασίαι convey to us: if I see a bird–shaped thing in front of me sitting in what looks like a tree–shaped thing, do I conclude that it is really a bird in a tree? If I do so correctly, in a way that assures me I have not erred or hallucinated, then I have performed an act of κατάληψις, ‘grasping.’ Once I have grasped enough true facts about the world, I can integrate them into a system of logically related general principles which is called ἐπιστήμη.[308] This ‘knowledge’ or ‘science’ enables me to categorise further φαντασίαι and draw inferences from them – once I have seen enough birds and enough trees, and learned to recognise what distinguishes them, I can see that this bird in front of me now is a partridge, and that the tree in which it sits is a pear tree. I might thereby infer that if I can kill and eat it I will have a delicious Christmas dinner.

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[305] Phld. *Mus*. 4.XLVIII.24–9: ὅ⸤ρους⸥ καὶ διαιρέσεις καὶ ἀπ̣⸤οδείξεις⸥ ἐ̣ν ἁρμονικῆι π̣λείου̣[ς εἶναι]. Cf. CXXXV.26–8.

[306] See further Delattre (2007) 373 n. 2, 432 n. 8.

[307] See e.g. D.L. 7.50–1; Cic. *Ac*. 1.11.40–2; Aëtius 4.11, 12 *apud* [Plu.] *Placita Philosophorum* 900c4–14, 900d4–901a5; cf. [Galen] *De Historia Philosophica apud ibid.* 900b8–c10 (= *FDS* 255.14–37, 256, 268, 277.17–27, 277A.9–20). Kerferd (1978) 252–4

In order to work, this system depends on our ability to identify several types of sense–impressions simply because they feel different than others. Most importantly, we need to be able to tell when an impression is the kind of impression to which we should give assent. Those kinds of impressions, the καταληπτικαὶ φαντασίαι, have a certain character of precision and clarity which enables us to trust them as non–hallucinatory, accurate depictions of the world outside of us – Cicero has the Stoic Antiochus say that other impressions, by contrast, are ‘devoid of all precision and clarity.’[309] So this qualitative difference between

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argues that all human perceptions are of this kind. For others, such as Long (1971) 82–3 and Togni (2013) 173, λογικαὶ φαντασίαι are characteristic of rational animals but not the only kind of φαντασίαι they may experience.

[308] For Zeno of Citium’s outline of this process see Cic. *Ac.* 2.145 (= *FDS* 369.9–20), and cf. S.E. *M.* 7.151 (= *FDS* 370.4–10) with Kerferd (1978) 254–258; Long and Sedley (1987) 1.256–7; Annas (1990) 186–7; Frede (1999) 297–300; Long (2002) 117–19.

[309] Cic. *Ac.* 2.49–51. See further Frede (1999) 310–13. Note that κατάληψις need not be caused by the thing about which it gives me information: at least some Stoics believed that I may learn true things about a partridge by being told about that partridge, not only by seeing the partridge myself (in addition to Frede see Sedley (2002) 140–1). This distinction, though important for the history of Stoic epistemology, is not urgently relevant to Diogenes’ musical views, which do deal with the direct perception of music performed in real time.

accurate and inaccurate perceptions lets us sort through those we should believe and those we should reject. To some extent we can do this naturally and subconsciously: children can learn automatically what a square is by seeing lots of square things, and after a while the concept of square takes root in their minds and filters their perceptions. This is a ‘preconception,’ a πρόληψις. Adults simply have these, and they do not need to make reference to a separate concept of ‘squareness’ in order to see that concept built into the world: squares just look different to them than circles do.[310]

But not all concepts are of this nature: we must continue gathering καταλήψεις on into adulthood if we wish to generate the sophisticated understanding represented by ἐπιστήμη. If, for example, I want to listen to French people speaking and hear more than a stream of indistinguishable sounds, then I must study and learn until I can hear syllables and words, distinct from one another and organised into a comprehensible semantic sequence. Diogenes uses this fact to form another –ικός phrase much like the καταληπτικὴ φαντασία which earlier Stoics had used to define a certain quality of sense perception. This is the ἐπιστημονικὴ αἴσθησις: a kind of sensory experience which is shaped by our scientific knowledge so that what we experience is given new character and shape by some discipline or science we have learned. Diogenes has been misunderstood on this point because of the apparent connection between his statements and those attributed by Sextus Empiricus to Speusippus, who also comes across in *M.* 7.145–6 as having believed in an ἐπιστημονικὴ αἴσθησις. But Speusippus is talking about a kind of rational perception to which we naturally have access from birth – something closer to the basic set of rational perceptions which for Stoics are afforded us by our προλήψεις.[311] And indeed, Sextus is probably wrong that

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[310] See Frede (1999) 318–20; Dyson (2009) 3–5, 37 on esp. Diocles *apud* D.L. 7.54 (= *FDS* 255.63–73; see further 342–6).

[311] So Tarán (1981) 54, 57–8, 64–5, 431–5. See further Parente (1980) 240–42. Differently Kaklamanou (2012) 1187–9, who thinks that Speusippus is in fact talking about something

Speusippus called such perceptions ἐπιστημονικὴ αἴσθησις: his report draws on poorly understood terminology which he gets from a Stoic middle–man, Antiochus of Ascalon, and so the Skeptic rather confusedly layers onto Speusippus' ideas words from Stoicism which do not belong there.[312] If instead we take Diogenes on his own terms in Philodemus, we will see that he is talking about a kind of perception which is shaped and guided by musical awareness of the harmonic relationships which govern proper intonation. Here are the two places where the phrase occurs, first in Philodemus' summary and then in his rebuttal:

> συ[γκεχωρ]ηκέναι δ’ αὐ-
> τῶι τὰ μὲν̣ [αὐτο]φυοῦς αἰσ-
> θήσεως δε[ῖσ]θαι, τὰ δ’ ἐπιστη-
> μονικῆς, τά [τε θ]ερμὰ μὲν
> καὶ τὰ ψυχ̣ρὰ τῆ̣[ς αὐ]τοφυοῦς, τὸ
> δ’ ἡρμοσ̣μέν[ον] καὶ ἀνάρμο̣-
> στον τῆς ἐπ[ιστη]μονικῆς.
>
> (Diogenes said that) he agreed with him that some things require natural sense perception, while others require scientific sense perception. Hot and cold require the natural, whereas concordant and discordant require the scientific (Phld. *Mus.* 4.XXXIV.2–8).[313]
>
> ἔ̣ι̣ρηται δὲ [. . τὸ τὰ] μ̣ου-
> σ̣[ικοῦ] καὶ τὰ πο[ι]η̣τοῦ γ̣’ [ὧ]τ̣α
> ἀ[π]ὸ δυνάμεως περὶ τὴν
> α[ἴσ]θησιν καταλαμβάν[ε-
> σθ[α]ι τὰς ποιότητας ὧν ἀν-
> τιλαμβάνονται καὶ τὰς ἡ-
> δο̣νὰς καὶ ⟦τας⟧ ὀχλήσεις

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we must develop, like the knowledge that this bird we are seeing is a partridge. But this seems to me to neglect the force of the word φυσικῶς in the Sextus passage, which Kaklamanou leaves out of her translation though it is beyond textual doubt.

[312] On this complicated mishap of transmission see Tarán (1981) 431–2; Kaklamanou (2012) 1185 with further bibliography at n. 7. Parente (1980) 242–6 explores the ways in which Speusippus could have developed an idea of ἐπιστημονικὴ αἴσθησις from concepts which already occur in Plato, but the fact that Sextus also attributes use of the adjective ἐπιστημονικός to Parmenides (*M.* 7.111–114) makes it much more likely that the Skeptic is simply applying Stoic language indiscriminately to scholars from other disciplines who did not use it. I argue that ἐπιστημονικὴ αἴσθησις is a Stoic coinage, and give my account of how the phrase made it into Sextus, in Klavan (2019c).

[313] The phrase 'he agreed with him' has usually been taken to mean that Diogenes agreed with Speusippus about the existence of scientific sense perception. But, for the reasons stated above (p. 147–8) and in Klavan (2019c), I believe it is more likely that Diogenes was claiming to be in agreement with a lost Stoic predecessor. Cf. Delattre (2007) 346 n. 2.

> τὰς ὑπ᾽ αὐτῶν, τῆς μὲν αὐτο-
> φυ̣οῦς, τῆς δὲ ἐπιστημονι-
> κ[ῆ]ς.

> It has been said (sc. by Diogenes) that, from the function present to sense perception, a poet’s and a musician’s ears grasp the qualities from which they derive the pleasures and irritations that come from them – from natural and from scientific sense perception (Diogenes *apud* Phld. *Mus.* 4.cxv.26–35).

Diogenes is talking about a union between two kinds of perception. One, the αὐτοφυὴς αἴσθησις, perceives things like ‘hot’ and ‘cold.’ These are typical examples of those basic facts of sense–data which might be directly perceived without reference to any kind of abstract concepts – Aristotle calls them ‘the things most vividly present to our senses.’[314] We may therefore surmise that Diogenes means ‘hot’ and ‘cold’ to be analogues here for ‘high’ and ‘low,’ which were supposed by many in antiquity to be the basic facts of auditory perception – our ears just hear, and distinguish between, sounds of differing pitch.[315] But in order to hear music, Diogenes is saying, we need to hear more than just high and low sounds. We need to hear sounds as placed together in a scale, following in a logical succession dictated by the facts of their harmonic relationships. This we perceive with our ἐπιστημονικὴ αἴσθησις: scientific perception is what we use to perceive τὸ . . . ἡρμοσμένον καὶ ἀνάρμοστον. Thus as we listen to music and learn to distinguish between, say, the Dorian and the Phrygian mode, or the chromatic and the enharmonic genus, our ears become more sensitive to the differences between these structures, and we simply hear the tuning of the songs we listen to without having to analyse those tunings consciously or articulate their logic in words. Then we come to derive pleasure or pain from songs according to whether they are in or out of tune. These pleasures and pains come ἀ[π]ὸ δυνάμεως περὶ τὴν α[ἴσ]θησιν: ‘from the function present to sense perception.’[316]

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[314] Arist. *PA* 648a33–35: ἐναργέστατα τῶν περὶ τὴν αἴσθησιν.

[315] Cf. Pl. *Phlb.* 17b11–e1 with Barker (1984–9) 2.213 n. 12 and Arist. *De An.* 420a26–30, 426b8–12 with Perälä (2018) esp. 262–7.

If this is indeed how Diogenes means us to understand δύναμις here, then he is making direct use of the crucial theoretical innovation that enabled Aristoxenus to justify musicology on its own terms as a purely phenomenological science. Δύναμις is what we hear when we experience a tone not simply as a given frequency (e.g. 329.628 Hz) but as one note of many in a scale, with a definitive relation to the other notes therein (e.g. 329.628 Hz heard as B natural playing the role of dominant in the E natural minor scale). What Diogenes is saying is that our ability to hear notes in this way incorporates abstract logical concepts, but that those concepts have been so internalised that we now hear them as features of our listening experience without having to articulate them verbally. If I am musically trained, I do not have to explain to myself what a C major triad is in order to hear three notes as constituting one. Those three notes simply have the quality which, to me, makes them perceptible as being in exactly that set of relations which makes them into that particular triad. That, according to my reading of Diogenes, is the purpose of ἐπιστημονικὴ αἴσθησις, which layers onto one’s basic perceptions a rational structure learned by careful observation over time.

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[316] We find this use of περί + acc. (in the sense of ‘oriented towards’ or ‘belonging to’ as in *LSJ* s.v. περί C.I.5) to denote ‘the things present to the senses’ also in minor works by Aristotle, who is the only one before Diogenes to use the phrase περὶ τὴν αἴσθησιν: *Insomn.* 461b7–13; *PA* 648a33–5; *Spir.* 483a18–25. This very specific meaning of a phrase not attested elsewhere is part of what prompts me to translate the passage differently than Delattre (2007) 210, who takes δύναμις here in the Aristotelian sense of ‘capacity of the soul’ – hence his ‘*une capacité relative à la sensation*’ for δύναμις περὶ τὴν αἴσθησιν. This results in the same meaning of ἐπιστημονικὴ αἴσθησις as that for which I argue here, and if Delattre’s translation is correct then Diogenes is still talking about our perception of tones as notes with a particular role to play in a given scale. But Delattre’s reading does not include a direct usage of Aristoxenean terminology as mine does.

The consequence of this is that Diogenes can attribute ethical qualities and motivational powers to wordless music just as much as he can to sung poems. It has been suggested that this would have been impossible for a Stoic – that only λεκτά can influence rational actors to change course, and so only language can have a real effect on listeners' ethical behaviour. Thus some have argued that Diogenes must have in mind persuasive poems accompanied by pleasing melodies which guide listeners into a more laudable frame of mind.[317] But the ἐπιστημονικὴ αἴσθησις shows that there is much more to Diogenes than that. As Paul Scade has recently pointed out, Stoic λόγος pervades the entire universe and governs not only the logic of language but also the proportional features of a beautiful face, or the harmonious set of interrelations between citizens in a well–governed state.[318] What this means is that although language certainly has a privileged place in the communication of rational arguments, it is far from the only way that one might receive the stimulus towards rational action required for ethical change. Indeed, this is a crucial point behind the grammatical form of the word λεκτόν, say*able*: it does not necessarily need to be said. One can hear the fact that a song is in tune or see the fact that a house is well built without articulating any of the relevant concepts to oneself or others in so many words.[319] Thus for Diogenes, the λόγος which undergirds the comprehensible structure of the whole universe may easily inhere in a succession of musical notes – in fact, it must so inhere if we are to experience such a succession as music. In Diogenes' formulation, listeners can use their ἐπιστημονικὴ αἴσθησις to perceive the structural integrity which makes both songs and souls well–proportioned in their movements and so gives them both ethical characteristics: when we hear a rousing tune in the Dorian mode, we simply hear courage. The song moves in the way a soul moves when it faces down danger; our ears hear that motion and so gain direct access to the emotional and ethical forms of musical sound.

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[317] See e.g. Nussbaum (1993) 103–104 and Janko (2000) 180.

[318] See Scade (2017) 211–2 *et passim*, and for the relevant Stoic sources see above, p. 140 n. 297.

[319] Cf. Cic. *DN* 2.145–6; *Orat.* 3.195; *Ac.* 2.19–20; Drozdek (2002) 94.

IV. The Stoic and the New Music: A Diogenean approach to the Athenaios Paean (Delphi Inv. 517, 526, 494, 499; *DAGM* 20)

A noteworthy feature of this new Diogenean ἦθος theory is that it does not rely upon a correspondence between musical melody and verbal pitch–accent to justify the claim that tunes can communicate emotional experience on their own. The ethical character of melody for Diogenes is not a derived feature of its resemblance to speech patterns as for Plato, nor of its use alongside words as for Aristoxenus: the motion of a melody does not get its emotional impact because it sounds like, or plays effectively against, the way the speaking voice moves when the speaker is feeling the relevant emotion. Instead, emotional movement is simply an inherent structural feature both of the melodic patterns of movement dictated by the rules of harmonics, and of the psychological patterns of movement dictated by the emotional structure of the human soul, where both patterns conform to an overarching λόγος which sets rational rules for how bodies interact in space throughout the whole universe. Words for Diogenes can have their own separate set of rules, equally obedient to the λόγος and capable of being used in collaboration with melodic movements, but also distinct in their own internally consistent logic and achieving their own mode of communication. In fact we know that the scholarch outlined such a set of uniquely linguistic rules for the meaningful combination of letters and syllables in his Τέχνη Περὶ Φωνῆς.[320] In this linguistic atomism, as in the separation of melody from pitch–accent, Diogenes is more an heir to Aristotle and Aristoxenus than he is to Plato: whereas for Plato the sounds of words and melodies must both emanate from one idea and so follow the same tonal contours in order to be expressively valid, Diogenes' theory leaves space for melody and language to communicate different things without violating their respective rules of proper construction.

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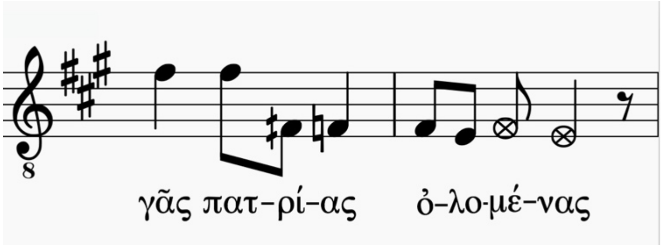
[320] See further below, pp. 179–80.



EX. 2: E. *IA* 792 (= PAP. LEIDEN INV. P. 510; *DAGM* 4)

This can be briefly illustrated briefly by looking at Ex. 2 (*IA* 792) once more. For both Plato and Diogenes, the unusually high pitch in which this tune is written would likely evoke grief and lamentation: as one scholiast remarks (*in* E. *Or*. 176), high–pitched singing is 'fitting for people lamenting' (οἰκεῖον . . . τῶν θρηνούντων).[321] The pitch therefore becomes a sort of 'background colour' that characterises the mood of the entire piece. But in Plato's model the sharp and dramatic deviation between word and pitch accent which occurs on thy syllable –ρί– here can be nothing other than a mistake: it will get in the way of our comprehending the idea communicated by the word 'fatherland' and make us associate the wrong kind of inner motion with that idea. But Diogenes can be subtler here and need not reject this deviation between word–accent and melody out of hand. Instead he can switch to a Peripatetic line and say that word and tune communicate two separate aspects of the Trojan women's experience (and the Greek women's empathetic imagining of it) in two totally separate ways. The syllables so arranged do indeed make us think of our fatherland, and perhaps of the comforts and stability which it provides us. But the sudden drop in pitch, the surprise dejection which it creates in our souls, and perhaps even the sense of 'wrongness' which comes with a tonal motion different from the ones the words lead us to expect, tell us something more which effectively communicates the full picture of what is happening onstage here. Diogenes thus retains Plato's natural coherence between λόγος and language, as well as between λόγος and melody, but joins Aristotle in severing the link between language and melody.

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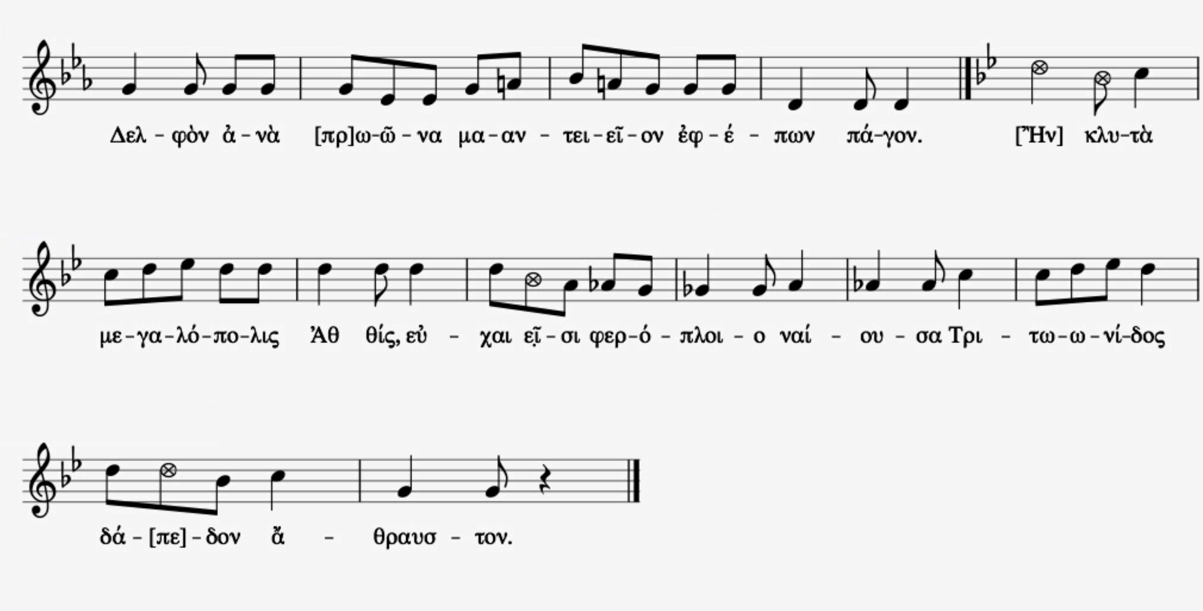
[321] Cf. above, p. 113 n. 252.

The result is a theory of musical expression that is simultaneously naturalist and relational: words and tunes each have their own expressive meaning (à la Plato), but can convey that meaning both separately and in dialogue with one another (à la Aristotle and Aristoxenus). Diogenes has thus altered Plato's model of natural musical affect to incorporate the free movement between text and melody which Aristotle and Aristoxenus made possible. Melody and language are both consistent with one universal λόγος for Diogenes as for Plato (and *contra* Aristotle). But because the Stoic has melody and words conforming to that λόγος entirely on their own respective terms, many different tunes can be used with the same set of words in order to give those words a number of different emotional flavours. The question of correctness then turns not on correspondednce between pitch–accent and melody, but on the appropriate use of text and tone in conversation with one another to create a full manifestation of some experience and its emotional character.

Another compositional act which is no longer contemptible *per se* for Diogenes is modulation. We find the Stoic claiming that certain tunes have certain ethical features, and probably he would have linked those ethical features to the modes. But he does not seem to have restricted laudable characteristics to only two modes as Plato did, or to have disliked the idea that a melody might move from one to the other. Diogenes could have easily accepted modulation as a valid way of marking the transition from one emotional phase in a song to another. This is effectively what happens in a melody from near Diogenes' era (128/7 BC) which is recorded on the south wall of the Athenian treasury at Delphi among records of the Athenian Pythiades festival.[322]


Δελ - φὸν ἀ - νὰ [πρ]ω-ῶ - να μα-αν - τει-εῖ-ον ἐφ - έ - πων πά-γον. [Ἦν] κλυ-τὰ
με-γα-λό-πο-λις Ἀθ θίς, εὐ - χαι εῖ̣ - σι φερ-ό - πλοι - ο ναί - ου - σα Τρι - τω-ω-νί-δος
δά - [πε] - δον ἄ - θραυσ - τον.

Ex. 3: Paean of Athenaios (Delphi Inv. 517, 526, 494, 499; *DAGM* 20), i.7–11

This paean, written by one Athenaios, recounts Apollo’s victory over the Python and celebrates Athens as a mighty land of natural beauty. In the section I have reproduced here (Ex. 3), the tune modulates from the Phrygian to the Hyperphrygian mode in a move which has often been interpreted as a shift from from a ‘traditional’ sound associated with the ‘archaic’ tunes of older music, towards a more complex and modally fluid kind of ‘New Musical’ aesthetic.[323] Hagel (2009) associates this change with the imagined appearance of the god himself in the sanctuary to take up his role in the re–enacted story: notes from the Hyperphrygian begin to appear as Apollo ‘visits’ (ἐφέπει) Parnassus, and the tonal centre has really shifted once verse 2 begins on the word ‘behold’ (ἤν), whereafter the tune progresses in the twisting and microtonal ‘ant–tracks’ associated with the melodic innovations of late

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[322] See Pöhlmann and West (2001) 70–71.

[323] So Hagel (2009) 263–7, 281–5. See also Pöhlmann (2018) 331–2.

5th–century theatre and kitharody. Others, notably Barker (2002) 119–32 have assessed the character of the first (Phrygian) section differently, but all are in agreement that modulation here is associated with a transition in the narrative and a turning point both in the poem's structure and in its content.[324]

None of this need cause Diogenes distress; indeed it is consistent with his theory to note that, as the god appears, the melody reflects a holistic shift in the entire emotional atmosphere. Now that Apollo is here things are elevated and unfamiliar in a way they were not before – whereas previously we were trodding along safe and familiar ground, now we have moved into a new phase where something extraordinary is going to happen. A change from one of the familiar archaic modes into a higher–pitched and more adventurous one gives emotional resonance to this narrative development and makes the audience feel the impact of Apollo's arrival. In terms of cultural tradition it is noteworthy that these melodic complexities, often associated with the frenzied agitation of dithyramb, are here being used to mark the appearance of Apollo. This could be a nod to the sculptural presence of Dionysus in the temple,[325] or perhaps it underscores the fact that, though the god has arrived, this is not a safe or comfortable moment: things are out of the ordinary not only because of the divine ephiphany, but also because of the dramatic and potentially chaotic battle with the serpent which lies ahead. Whatever interpretation one may wish to apply, there is space to do so without transgressing the bounds of Diogenean ἦθος. The many stages of this story and its complex emotional resonance can be made consonant in the reading of a Diogenean critic with multiple transitions from mode to mode.

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[324] In addition to Pöhlmann and West (2001); Barker (2002); and Hagel (2009), see Reinach (1909–13) 24, 33–5; Hagel (2000) 38–93, (2002).

[325] So Hagel (2009) 282.

It is significant that the additions which Diogenes seems to have made to Platonic musical affect can accommodate two features of composition, modulation and pitch–accent deviation, typically associated with the ‘New Music.’ By Diogenes’ day, such radical innovations were no longer so radical or innovative, and a famous Priansian inscription bears witness to the fact that mavericks like Timotheus had taken their place among the canonical masters.[326] The reading of Athenaios’ modulation which I have outlined above does depend on some awareness of a motion from ‘old’ to ‘new’ in the transition from an archaic Phrygian tonal environment to an adventurous Hyperphrygian one. This is commensurate with our evidence insofar as theorists as late as Aristides Quintilianus were clearly aware that some modes were holdovers from the hoary days of the past and had a more old–fashioned sound than other ones which had developed later.[327] But at the same time, Diogenes has found ways to accommodate these newer kinds of music and to analyse their clearly compelling expressive powers. He is able to maintain a Platonic theory of musical affect without rejecting wholesale, as Plato did, the developments in harmonic composition which had become standard parts of performance practice by the time Diogenes took over the Stoa. This is largely because Diogenes has taken full advantage of the developments in musicology and philosophy which have emerged in the centuries between Plato’s work and his own. By importing features of Aristotelian psychology and Aristoxenean harmonic theory into his own Stoic system of physics and causation, Diogenes was able to update Plato’s arguments and make them newly viable both in the artistic culture of the 2nd century and in the philosophical environment of the Hellenistic schools.

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[326] See Power (2010) 549 on *Inscr. Cret.*1.24.7–9; Cf. West (1992) 372.
[327] See above, p. 32 with n. 70.

Chapter V

‘Sound is the Cause of Understanding’: Euphonism and Musical Language

We are almost ready to understand Philodemus’ argument against Diogenes, an argument which represents the opposite extreme from the Stoic’s new, robust ἦθος theory. Once we do so we will have outlined the parameters of musical semiotics among Greek speakers as it stood by the middle of the first century BC: the farthest possible poles of debate on the subject are neatly represented by Diogenes’ reinvigoration of the ethical affect tradition on the one hand, and, on the other, Philodemus’ complete disavowal of that tradition and of all others which afford to melodic sound the capacity to communicate meaning of any kind. But in order to fully grasp those two opposing sides of the debate, we must first investigate another theoretical position which, although somewhat peripheral to musical philosophy on its face, was in fact a powerful influence upon Philodemus as he formulated his attack on ἦθος in the person of Diogenes. The unacknowledged presence of what is now called Euphonism in the background of the *De Musica* has been largely overlooked in modern scholarship: Philodemus’ statements on music are manifestly reactive, but it is seldom noted that Diogenes and his ilk are not the only ones against whom the Epicurean is reacting. Philodemus also has in mind these strikingly unorthodox theorists, whose poetics of verbal sound treats words as a kind of aural sensation. Euphonism was not a musicological movement – it expressly aimed to discuss the sounds of words in isolation from all other aspects of poetry, including the kind of melody and rhythm which Aristoxenus was simultaneously attempting to designate as uniquely musical. But precisely because they were pursuing that aim, the Euphonists made claims which reframed the debate about artistically arranged sound and its relationship to poetic meaning. Understanding how they did so will illuminate several key developments in the semiotics of music that took place during the Hellenistic era, and clarify our picture of the scholarly landscape into which Philodemus would eventually insert himself.

Even from Philodemus’ maddeningly selective and lacunose account in *On Poems* we can see that, during the third and second centuries BC, a succession of scholars developed an innovative and unorthodox critical system. That system evaluated poetry as an art of pure lexical sound, without reference to traditional notions of semantic meaning. The Euphonists were a disparate bunch of thinkers with disparate critical pedigrees and varying degrees of philosophical acumen – to some extent they belong together not because they would have necessarily considered one another colleagues but because Philodemus presents them as being of a piece with each other. But he makes a convincing case that there is good reason to do so: the Euphonists have in common an interest in the poetics of pure verbal sound, and between them over time they articulate that poetics in increasingly ardent and theoretically rigorous terms. They were each in conversation with other traditions of literary criticism, most notably those which appear in Peripatetic and Stoic writings on music and poetry. As we will see, much of what they did for poetry mirrors what Aristoxenus did for music in the *Harmonics*: one of Euphonism’s fundamental defining features is the effort to delineate an artistic act and an audience experience which can be identified uniquely as ποίημα and evaluated on purely poetic terms. This is where the Euphonist project becomes important for the semiotics of music. In their effort to define what poetic language is and is not, the Euphonists took care to specify what such language can and cannot do, and by consequence to specify how it can and cannot convey anything like content or meaning. The result was that their theories assigned certain capacities to sound in general which had ramifications for subsequent theories of melodic as well as of verbal art. We can understand those ramifications, and their influence on Philodemus’ musical philosophy, by examining three theorists central to the development of Euphonism as tracked in *On Poems* Books 1 and 2: Andromenides, Heracleodorus, and Pausimachus.

I. A Brief History of Euphonism: Andromenides, Heracleodorus, Pausimachus

a. Andromenides' proto–Euphonism

Euphonism is a modern term which designates an exclusive critical focus on lexical sound among certain Hellenistic literary theorists. That approach seems to have evolved during the third and second century BC in two stages. The first stage is represented in *On Poems* by Andromenides, a Peripatetic who flourished around the turn of the third century.[328] Andromenides cannot be called a strict Euphonist himself because he did not attempt to advocate a complete disregard for the semantic meaning of words as part of their poetic value. Instead he argued that poets are defined by their attention to a particular kind of appropriateness (οἰκειότης) in their lexical selection (ἐκλογή). Appropriateness of diction, often described as τὸ πρέπον, was a going concern in stylistic criticism of all kinds – Aristotle emphasised it as an important rhetorical task for orators, who must take care that they use the appropriate tonal register for their arguments.[329] Given his background, Andromenides probably had this kind of discourse in mind, but he aimed to carve out a more specific remit for uniquely poetic appropriateness. Within the general sphere of all possible kinds of word choice, Andromenides argued, the poet's definitive task – his ἔργον – is to select the most beautiful (καλόν) of those words available to describe his subject. This ἔργον 'will be accomplished if, among the (words) used about (sc. the topic at hand), the poet picks the more beautiful and stays away from the uglier ones.'[330] The kind of beauty Andromenides has in mind is a purely lexical one, to do with the word's phonemic shape and the sensory impact of its pronunciation: 'A word contributes beauty' to a poem, he writes, 'whenever the syllables shine, densely woven with letters. The mouth grabs onto weighty syllables of the most incandescent tones and tosses them forth.'[331] When words are chosen in this way they attain 'persuasiveness' because of the 'similarity in the diction to the content depicted.'[332] Philodemus does not preserve any Andromenidean usages of the word ἐνάργεια, but in essence what Andromenides advocates is a kind of aural version of this stylistic 'vividness,' which other critics before him had so often framed in visual terms.[333] Thus whereas Aristotle (*Po.* 1455a22–6) advised dramatists to visualise their scenes while writing, Andromenides thinks that when epic and tragic poets reach the height of eloquence, 'the ears seem to be able to hear heroic characters.'[334] Poets, for Andromenides, are in the business of selecting beautiful words which bring their subject matter to life in the ears of a listener.

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[328] See Ardizzoni (1953) 87–90; Rostagni (1955) 411–4; Mangoni (1993) 279; Janko (2000) 151–2. Jensen (1923) 151 argued that Andromenides was a Stoic; Romeo (1988) 48 dated him slightly earlier.

[329] See Arist. *Rh.* 1376a33–b30, 1405a3–7a18; cf. *Po.* 1450b4–7; Isoc. 4.9, 10.11; [Cic.] *Rhet. Her.* 3.vi.11 with Macleod (1983) 52; Hornblower (1987) 46–7; (1991–2008) 1.59–60.

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[330] Phld. *Po.* 1.CLXVII.20–26: γενήσεσθαι τοὖργον ἂν τὰ κα[λ]λίω τῶν κατ᾽ αὐτοῦ τιθεμένων ῥήματ᾽ ἐγλέγηται, τὰ [δ]᾽ αἰσχίω περιίστητ[αι]. This elaboration of the elliptical τῶν κατ᾽ αὐτοῦ τιθεμένων is the one that fits best with Andromenides' views — see further Janko (2000) 383 n. 6.

[331] Phld. *Po.* 1.XXI.1–14: ὄνομα π[αρέχε]σθαι κάλλος, ὅτα[ν] ἐσπαθημέναι γράμμασιν [φαίνω]σιν αἱ συλλαβαί {ι}, καὶ δράξασθαι τὸ στ̣όμα καὶ ῥίπτει̣ν ὀγκώδεις συλ[λαβὰς τ]ῶν λαμπροτά[των φθό]γ̣γ̣ων. In this Andromenides opts for only one of several kinds of beauty which words could exhibit in Peripatetic theory: Theophrastus (*ap.* Demetr. *Eloc.* 173–5) thought that words possess beauty if the sound of them pleases the hearing (ἀκοή), if they convey imagery that appeals to the sight (ὄψις), or if they express a concept that is 'dignified to the mind' (τῇ διανοίᾳ ἔντιμον). Andromenides is thus specifying the first of these options as the kind of verbal beauty at which poets must aim. Cf. Licymnius *ap*. Arist. *Rh.* 1405b5–7, and for the comparison between Theophrastus and Andromenides see further Ardizzoni (1953) 88; Chiron (1993) 117; Janko (2000) 149 n. 5.

[332] Phld. *Po.* 1.XVIII.1–6: poets are advised to [οἰκειότα]τα τοῦ πρά[γ]ματος ἐγλ[έγεσ]θαι τὰ ῥήμαθ᾽ ἵνα προ[σαρμόσῃ] καὶ τὸ πιθαν[ὸν ἔχηι]; at 5.XXXV.16–20 they are to pursue ὁμοιότητα λέξεως τοῖς δηλουμένοις πράγμασιν. See also 1.CLXIX.15–18, CLXXII.18–22, 5.XXXIV.35–XXXV.1; Janko (2000) 387 n. 1, 389 n. 1. The appearance of οἰκεῖα ῥήματα at *Po.* 1.CLXXII.18–22 supports the reading of [οἰκειότα]τα at XVIII.1–6.

[333] See e.g. [Longin.] *On the Sublime* 15.2; [Cic.] *Rhet. Her.* 4.LV.68–9; Quint. 8.3.61; Berardi (2012) 339 with further bibliography at 340 n. 1. Cf. D.H. *Comp.* 15.60–16.24.

A few things bear stressing about Andromenides' approach. First, when he says that aurally evocative word choice is the poet's ἔργον, he is not simply describing one among a number of things a good poet should do. He is specifying the essential task which makes a poet a poet. That is what an ἔργον is for someone working in the Aristotelian tradition: it is a unique act the accomplishment of which constitutes being a certain kind of person or thing.[335] And so, for example, an aulete does something which defines him as an aulete: he plays the αὐλός.[336] This action, and probably also its product (a performed piece of aulos–music) constitutes the ἔργον, and the ἔργον defines what it is to be an aulete: it just is doing a certain kind of action and so making a certain kind of thing.[337] Similarly, for Andromenides, being a poet just is choosing words whose sound is both beautiful and appropriate so that it vivifies the content described. Definitions which use this Aristotelian concept of the ἔργον have the benefit of specifying exactly the terms on which the thing defined is to be evaluated: we can know whether someone is a good poet by evaluating how effectively he performs the uniquely poetic task. It follows also that we can eschew from our assessment any evaluation of other activities which poets may incidentally perform in the course of pursuing their essential aims. Poets may describe biological phenomena, for example, but they do not do so *qua* poets. Thus if they do so inaccurately their failure does not reveal a deficiency in poetic skill.[338] The crucial consequence of this for Andromenides is that, though people who write poetry do choose narrative content and describe it semantically with language, they do not do those things *qua* poet but rather in some other capacity.[339] So if I set out to write a poem in English, I first (*qua* storyteller, but not *qua* poet) decide that I will write about the madness of Orestes. Then (*qua* speaker of English, but still not *qua* poet) I observe that there are many words at my disposal to describe that madness: some of them include 'babbling,' 'incoherent,' 'unfortunate,' and 'intermittent.' Then my job *qua* poet – and my only job *qua* poet – is to choose from among those words the ones which, when strung together, will bring Orestes vividly to life for those who hear my composition read aloud or imagine the sounds of it while reading silently to themselves. Thus a poet, strictly speaking, is not someone who communicates semantically with language but someone who performs a discerning act of selection between words on phonic and aural criteria.

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[334] Phld. *Po.* 1.CLXX.22–CLXXI.4: δύνασθαι . . . τὰς ἀκοὰς δοκεῖν ἡρωϊκῶν σωμάτων ἀκούειν.
[335] See *EN* 1097b28–34; Joachim (1951) 48–50; Broadie and Rowe (2002) 276; Baker (2015) 229–30 n. 10; Klavan (2019a).
[336] See *EN* 1097b25–8.
[337] So Baker (2015) 248–54.
[338] So Arist. *Po.* 1460b13–22. Similarly Ford (2015) 7–14. On the close correspondence between this Aristotelian stance and the Euphonist project see Porter (1995a) 118–22.

At the same time, however, Andromenides does not think that poets should or even could disregard the semantic content of their words entirely. Far from it: the very act of choosing words to fit the subject matter necessitates an awareness of what is being said. The more precise that awareness is, the better the artist will be able to find the exact *mot juste* to depict his subject matter in aurally vivid terms. Poets, then, do not choose words for their semantic meaning, but they do choose them on the basis of criteria which are partially determined by their semantic meaning. In the case of Orestes, if I choose the word 'babbling,' that is because its syllables (unlike those of 'incoherent') evoke for me the sound of stuttering and distracted speech. But the reason I am looking for that sound in the first place is because I have an awareness that I am trying to describe madness. Likewise the experience of hearing a poem, and the act of judging one effectively, requires that the listener have an awareness of what is being described so that he can evaluate whether the description is phonetically appropriate. That is a principle which would later be asserted by Crates of

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[339] See Phld. *Po*. 1.XII.21–5, CLXI.2–6.

Mallos, who claimed to endorse Andromenides' views and may even have studied under him.[340] Crates claimed that 'we judge by sense perception – not without the content, although we do not (judge) the content.'[341] This is a kind of evaluation which could not be performed by someone who did not speak the language of the poem he was evaluating: effective critics, on this model, need to know the meaning of what is said before they can evaluate the sound of the words in poetic terms. Andromenidean criticism, therefore, is not Euphonism but proto–Euphonism, a poetics not of pure sound but of verbal sound as expressively vivid vehicle for semantic meaning.

b. Heracleodorus, Pausimachus, and the heyday of σύνθεσις: Euphonism proper

After Andromenides, Philodemus introduces two critics whose views are at once more radical and more difficult to interpret. Heracleodorus' *floruit* is in the late 3rd century, or perhaps the early 2nd – after Andromenides but before Pausimachus.[342] Textually, these two are treacherous even by Philodemean standards. Many of their statements are preserved in Book 1, of which Janko's (2000) excellent reconstruction allows for clear–headed assessment. But more material from both Heracleodorus and Pausimachus also appears in Book 2, and Janko's new edition of this second book will probably necessitate reattributing to Heracleodorus some passages currently ascribed to Pausimachus.[343] Nevertheless, we have enough information already to see how, between the two of them, these theorists arrived at Euphonism proper and thus altered the state of play in subsequent aesthetic criticism. Their contributions were like those of Andromenides in that they aimed to delineate a uniquely poetic aspect of verbal art which could be considered in aspectual isolation from all other features of language and sound. This they did with much greater precision than Andromenides – they insisted that whatever significance or power poetry may have for its audience must be wholly the result of verbal sound, considered separately from the semantic meanings of words.

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[340] See Asmis (1992b) 139–42, 144–5.

[341] Phld. *Po*. 5.XXVIII.20–9: δι' αἰσθήσεως κρ[ίνειν] καὶ οὐκ ἄνευ τῶν [νοο]υμένων, οὐ μέντοι τὰ νοούμενα. Cf. the assertions, which may belong to Crates, about the interrelation between ear and mind as judges of poetic excellence: Phld. *Po*. 3 fr. 16.11–5, 54.7–18 Janko; see Gomoll (1936) 374; Pohl (1968) 156; Sbordone (1983) 125–9; Asmis (1992b) 139–42, 144–5; Janko (2011) 57–64.

[342] For the former view, see Janko (2000) 164–5; for the latter see Jensen (1923) 147–9; Pohl (1968) 147.

[343] Janko (personal correspondence), and cf. (2012) 183.

If Andromenides' key definitional tool is the ἔργον, that of Heracleodorus and Pausimachus is the ἴδιον. This is consistent with their respective intellectual affiliations: a Peripatetic like Andromenides could be expected to use an Aristotelian concept like the ἔργον. But Heracleodorus and Pausimachus have more eclectic influences: we will see that some of their views probably rely on those of the earlier Peripatetic Neoptolemus of Parium, but that they also both, and Pausimachus especially, have a fair degree in common with the Stoa. The ἴδιον is an important critical tool shared between both of those traditions but put to slightly different use by each: Aristotle means by ἴδιον a series of properties which is unique but not essential to a given individual or class of individuals, whereas a series of unique properties which is also essential qualifies for him as a ὅρος – a definition.[344] The Stoics, largely following Chrysippus, also searched for ἴδια which delineated unique lists of properties. But they may have waived the requirement that such a list be essential, or they may even have dismissed the notion of essential properties altogether – perhaps for them, simply to attribute any ἴδιον to something was enough to define that thing.[345] The consequence of this can be illustrated by considering two descriptions of the species 'human being' – a human is both 'a two–legged animal capable of laughter,' and 'a two–legged animal capable of reason.' For Aristotle the former is an ἴδιον – it is unique to humans – but only the latter is a ὅρος: it identifies 'what it is to be' (τὸ τί ἦν εἶναι) a human. Stoics, though, probably consider both of these ἴδια and so leave open the possibility that both are satisfactory descriptions of what humans are. Heracleodorus and Pausimachus combine elements of both these approaches: they use the word ἴδιον to mean a unique action or feature which defines something, but they treat that unique action or feature as essential: the reason they devote so much attention to specifying the the ἴδιον of poets and of poems is because they think that, once they have done so, they can describe and evaluate poetry purely in terms of those unique features without reference to all the other features which they consider superfluous.

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[344] See Arist. *Top*. 101b19–39, 128b16–21, 155a3–10; with esp. Barnes (1970) 141–2; Brunschwig (1986) 146–7, 153–5; Reinhardt (2002) 349–55; Chiba (2010) 203–51; Crivelli (2010) 402; Ferejohn (2013) 118–9; Klavan (2019a).

[345] See Alex. Aphrod. *in* Arist. *Top*. 101b39; D.L. 7.60; Σ Dionys. Thr. p. 107 Hilgaro (= *FDS* 628, 621.1–3, 627.2–4); with Reesor (1983) 124–9; Long and Sedley (1987) 1.194; Crivelli (2010) 396–404.

What, then, is the ἴδιον of a poem, and what of a poet? Several Heracleodoran fragments indicate that a poet's ἴδιον is the act of lexical σύνθεσις: poets put letters, syllables, words, and clauses next to each other in an order which appeals to the ear. 'The poet aims for the ἴδιον in σύνθεσις,' writes Heracleodorus, and 'the σύνθεσις is something ἴδιον to the poet.'[346] When the poet accomplishes this act of arrangement, there results a lovely sound, the εὐφωνία which gives Euphonism its name. This is where an uncertainty arises: is the ἴδιον of a poem the arrangement of its words, the characteristic σύνθεσις which results from the poet's unique act of σύνθεσις? Or is the poem's ἴδιον the εὐφωνία that emerges from this particular arrangement of words? Philodemus records several statements which suggest that the former might be the case: 'The pleasure of a verse comes about in the very σύνθεσις of the words itself,' we read, and 'the σύνθεσις enthrals us on its own, bringing in no other excellence.'[347] But then we are told that 'σύνθεσις does not enchant us of itself,' whereas 'the excellence of verse lies in εὐφωνία.'[348] If this is so then perhaps euphony is a poem's true ἴδιον, and there are fragments which say as much: 'the εὐφωνία which supervenes [sc. upon σύνθεσις] is the ἴδιον.'[349] To make matters worse, all of these fragments seem to come from Heracleodorus. So is it a certain kind of word order that makes a verbal composition a poem, or is it the lovely sound which emerges from that word order?

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[346] *P.Herc.* 1676 V.17–19: ὁ ποητὴς τὸ (. . .) ἴ̣δ̣ι̣ον ἐν τ̣[ῆι συ]νθ̣έσει β[ού]λ̣[ε]σθαι (text from Janko (2011) 51 n. 2); Phld. *Po.* 1.XXXVII.8–10: τὴν σύνθεσιν (. . .) ἴδιόν τ[ι τοῦ ποη]το[ῦ φ]αμεν. See also *P.Herc.* 1676.IV.18–25, VII.12–16.

The problem arises because, although both Heracleodorus and Pausimachus understand poetic language fundamentally as a structure assembled out of words, they want to find a way to focus their critical attention not on the structure itself but on what it is like to hear that structure. Their basic view of language, unlike their assessment of poetry, was a widespread one in antiquity: from the smallest and irreducible lexical sounds (letters) speakers and writers build syllables, then words, then arrangements of words in clauses and sentences. The debt which this model owes to atomism, its similarity to the Stoic Τέχνη Περὶ Φωνῆς, and the cross–pollination between Euphonism and Stoicism in this area, have been amply explored.[350] The Stoics' primary interest was in how any user of words can arrange the elements of language in a particular way so that they become semantic (σημαντική) and so qualify not only as articulated utterance (λέξις) but as meaningful speech (λόγος).[351] When one accomplishes such speech, according to the Stoic system, there emerges out of one's lexical arrangement a 'sayable' (λεκτόν) – an idea which this particular set of sounds communicates to the mind of the listener.[352] Euphonists, by contrast, are interested not in how language works to communicate thought but in what poets do to create poems. The answer is, they too arrange letters and syllables – they perform σύνθεσις. But for the Euphonists, the definitive question about verbal arrangements is not whether ideas come out of them, but whether euphony results from them.[353] Given a particular set of words in a particular arrangement, the question 'is this a poem' comes down to the question 'do these words sound good in this order?' The metaphor which recurs again and again in *On Poems* for this view of poetry is that of the plastic arts: poets are in the business of arranging syllables and clauses into sound–sculptures, and when they do so, those who hear their words have the uniquely poetic experience of hearing verbal euphony.[354] The definition works both on the level of individual poems and on that of poetry as a whole: a poet is someone who performs the act of verbal σύνθεσις, and a poem is something which has the beautiful sound of a well–arranged set of words. But one particular poem is defined as a few particular beautiful words composed by the particular poet who arranges sound in this particular way: Sophocles is not only a poet – someone who arranges lovely words – he is the specific poet who arranges these words in this way so that they become *Oedipus the King*. That is a fairly comprehensible, if unorthodox, view of poetry. But it leads directly to the uncertainty which emerges from the fragments of Heracleodorus that I cited above (pp. 166–7): what, fundamentally, is a poem? Is it the words themselves in their particularly poetic arrangement? Or is it the sound of those words as heard by a listener?

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[347] Phld. *Po.* 1.CXCIII.6–11: [τὴν] το[ῦ] ποήματος ἡ[δονὴν καὶ ἐ]ν ἀυτῆι <τῆι> συνθ[έσει πεφυ]κέναι τῶ[ν] λέ[ξεων]. *P. Herc.* 1676.VII.13–16: α[ὐ]τὴν ψυ[χα]γωγ[ε]ῖν σύνθεσιν κ[αθ' α]ὑτήν, ἕτερο[ν] οὐδὲν ε[ἰσφ]ερομέν[η]ν ἀγαθόν.

[348] *P. Herc.* 1676.XII.8–10: τὴν σύνθεσιν (. . .) μὴ ἐξ αὑτῆς θέ[λγ]ειν ἡμᾶς. Phld. *Po.* 1.XXXVII.8–13: τὴν ἀ[ρε]τὴν τοῦ ποήματ[ο]ς ἐ[ν ε]ὐφωνίαι κεῖσθαι (reconstructed alongside *P. Herc.* 1676.XII.24–27, where the statement recurs). See further Janko (2000) 163.

[349] *P.Herc.* 1676 VI.1–7 (with corrections from Janko (2011) 51 n. 2): σύ̣νθε[σιν μόνην ἰδίαν] ἐργάζεσ[θαι, καὶ (. . .) τὴν (. . .) ἐ]π̣[ιγει]ν̣ομένην [ε]ὐφωνίαν ἴδιον [εἶν]αι.

[350] See Burkert (1959) 167–97; Gentinetta (1961) 27–35, 98–118; Porter (1989) 170, (2010) 230–1; Armstrong (1995a) 211–3; Janko (2000) 175–83, 283 n. 1; Ademollo (2011) 166 n. 51, 258–9; and cf. Democr. fr. 21 Diels–Kranz; Arist. *GC* 315b6–15; Pl. *Tht.* 201d8–e2; *Cra.* 422a1–b5, 424d5–5a5; Arist. *Metaph.* 985b12–19; *Po.* 1456b20–7a30; D.H. *Comp* 14.

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[351] See D.L. 7.56.3–57.7 (= *FDS* 476).

[352] See S.E. *M.* 8.409, 10.218, 11.224.4–5.1 (= *FDS* 272.1–12, 720.7–13, 708.1–6); Long (1974) 136; Long and Sedley (1987) 1.163–5, 181–2; Brunschwig (1988) 92–3; Frede (1994) 114–8; Gourinat (2000) 115–9; Boeri (2001) 735–7; Drozdek (2002) 93–6; Dufour (2004) 1.177–8, 470–1; Powers (2014) 413–2; de Harven (2015) 406–7. On the hazy details of how exactly a λεκτόν emerges from a particular arrangement of sounds, see Long and Sedley (1987) 1.165 (on D.L. 7.53.7–8 [= *FDS* 255.58–60]), 199–202; de Harven (2015) 418–24, esp. n. 19. Cf. Lloyd (1971) 60–1.

[353] See Phld. *Po.* 1.CCVIII, 5.XXIV.27–32; *P.Herc.* 1676.VII.8–12; Porter (1995a) 152, 162–4; Janko (2000) 162 n. 6.

[354] *P.Herc.* 1081 + 1074 fr. e, I.20–II.24. Cf. Phld. *Po.* 1.LXXIV.7–26; *P.Herc.* 1676.III.12–22, IV–V; Asmis (1995) 157–77; Porter (2010) 494–510.

The best interpretation of the fragments as they stand is that Heracleodorus was ambiguous on this point, but that Pausimachus clarified things by insisting that verbal euphony alone is the unique feature which makes something a poem.[355] Between the two it was Pausimachus who insisted most unyieldingly on analytical precision; the clearest witness to this is his attempt to categorise each sound of the Greek language, down to its letters and accents, according to its aesthetic qualities.[356] It must also have been he who undertook to clarify that, though the euphony of beautiful poems comes about because the poet has arranged words well, it is the euphony itself which makes the poem what it is.[357] The result is a shift in focus away from σύνθεσις as the central poetic act and onto sound as the sole defining feature of a poetic composition, the ἴδιον which makes a poem a poem. This is the meaning of Pausimachus' claim that 'good poets excel and endure in a class of their own because of nothing other than their sounds.'[358] The point there is that, though a poet has arranged words next to one another in order to make his poem, the thing that he has made is not an arrangement of words but a series of sounds.

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[355] This is why Philodemus can suggest that Crates misunderstood Heracleodorus to be praising σύνθεσις when in fact he was praising its supervenient sound: Phld. *Po.* 5.XXIV.27–32. Like Porter (1989) 165, 174–5, I believe that Philodemus here took advantage of fuzziness around the theoretical edges to fabricate a disagreement where none existed. See further Jensen (1923) 148–52; Ardizzoni (1953) 85; Asmis (1992b) 144; Janko (2000) 122 n. 1, 157, (2011) 51 n. 1; Porter (2010) 230.

[356] See Phld. *Po.* 1 LXXXIV.6–LXXXV.26, LXXXVI.5–24, LXXXVIII.3–15, XCI.3–13; *P.Herc.* 994 fr. 18.26–19.7.

[357] Similarly Janko (2000) 279 n. 4.

[358] Phld. *Po.* 1.LXXXIII.11–14: οἱ ἀγαθοὶ ποηταὶ παρ᾽ οὐδὲν ἄλλο πρωτεύουσίν τε καὶ μόνοι διαμένουσιν ἢ παρὰ τοὺς ἤχους. This also means that the ἴδιον of poems is the ἴδιον of good poems, which suggests the somewhat surprising result that bad poems fail to qualify as poetry at all: see Phld. *Po.* 1.LVIII.16–26, CXXVI.20–5.

With this final clarification we have arrived at Euphonism proper: the view that poetry just is verbal sound, and the experience of a poem just is the experience of hearing a set of sounds. This is a thoroughly aspectual theory: Pausimachus and Heracleodorus are both perfectly happy with the fact that, in addition to having sounds which may be arranged in a beautiful order, words also have meanings which they communicate to the mind. Their point is that the act of composing a poem is the act of using words for a completely different purpose than semantic communication – the purpose of generating a pleasurable sensory experience. This is why Pausimachus does not say ‘words have no semantic content’; instead he says, ‘let us disregard the underlying content for the time being (νῦν).’[359] It is also why Heracleodorus claims that people like Herodotus and Xenophon composed verses (ποιήματα):[360] not because their compositions are not also history, but because, in addition to relating past events, they also paid attention to verbal arrangement and to the way their words would sound. In that capacity these two were composing poetry, not prose, and we can appreciate their work as poetry if we ignore what they are saying and simply listen to their well–arranged sounds. It is once we have accomplished this narrowing of critical focus that Heracleodorus can claim outright, that ‘linguistic content does not move us at all’: poetry is a particular kind of thing which has a particular kind of effect on us, and that effect is not due in any respect to the understanding we may or may not have of what that poem’s words mean.[361] Both Heracleodorus and Pausimachus, then, are building their way towards the claim that grasping and evaluating a poem as a poem requires momentarily disregarding the meaning of its words and hearing those words simply as sounds, focussing only on how it feels to hear them.

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[359] Phld. *Po*. 1.CXV.1–3: τὴν δ᾽ ὑπο[τετα]γμένην ἔνν[οιαν αὐτῆς ἀ]φῶμεν νῦν.
[360] Phld. *Po*. 1.CXCVIII.24–CXCIX.25. See also Phld. *Po*. 1.CCI (with Janko (2000) 430 n. 1); 3.II.27–III.23; *P. Herc*. 1676 II.28–III.3. Cf. Cic. *Orator* 20.67; D.H. *Thuc*. 23.39–44.
[361] Phld. *Po*. 2 *N* 1081b fr. 23.6–8: ὅλως νόημα μὴ κεινεῖν. Cf. *P. Herc*. 1676 fr. 3.22–4. See also Phld. *Po*. 2 *N* 1081b fr. 9.6–11. See Gomoll (1936) 373–4.

II. Euphonism in Action: Poems as pure sound

a. Aspectuality in two directions: Peripatetic tradition and the boundary between sound and meaning

Euphonist evaluation of poetry is an act of conceptual abstraction (James Porter aptly invokes the term χωρισμός) which owes something not only to Aristotle, but also to a critic with visibly Aristotelian influences, Neoptolemus of Parium.[362] In our extant sources, if not in actual fact, Neoptolemus was the first to invoke a distinction between two aspects of poetry which are called ποίημα (or πόημα) and ποίησις (or πόησις).[363] Very generally speaking, the latter is an idea communicated by a poetic set of words, whereas the former is the poetic way in which those words are presented – they are roughly analogous, but not identical, to our 'form' and 'content.' The distinction is variously figured by the different theorists who make use of it, but Philodemus' report makes clear that, for Neoptolemus, these two aspects of language are separated from one another conceptually but never actually. Hence the theory is reported in the language of χωρισμός: Neoptolemus, says Philodemus, undertook 'to distinguish (χωρίζειν) the cognitive content (διανοήματα) from the diction (λέξις)' so that 'only subject matter (ὑπόθεσις) belongs to πόησις' whereas 'only the arrangement of the diction (σύνθεσις λέξεως) is involved in πόημα.'[364] These are two features of poetry resulting from two different kinds of compositional activity: to arrange words artfully is to create a ποίημα, but to communicate an idea with such words is to achieve ποίησις. The Stoics adopted their own version of this scheme around the same time as the Euphonists were writing and, tellingly, semantic content is one of the primary markers the Stoics used to differentiate ποίησις from ποίημα. In Posidonius' much–discussed definition, ποίημα is any set of metrically or rhythmically arranged words, whereas ποίησις is 'ποίημα which signifies (σημαντικὸν ποίημα), comprising a μίμησις of mortal and godly things.'[365] Effectively, then, the Euphonists are proposing a model of poetic criticism which disregards ποίησις and treats poems as pure ποίημα, although (*contra* Posidonius) they think the latter is defined not by metre or rhythm but simply by beautiful sound.[366] This, as Porter (1994) 124 has pointed out, is among the reason why Philodemus' survey is entitled Περὶ Ποιημάτων: it is a history of theorists who focussed more and more exclusively on the arrangement of words (σύνθεσις) into beautiful–sounding compositions (ποιήματα) to the exclusion of all other features which those words may exhibit, including semantic meaning.

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[362] On χωρισμός and its implications for non–metrical poetry in both Euphonism and Aristotle, see Porter (1995a) 118–22; (2010) 242. Cf. Morrison (1985) 104 with esp. Arist. *De An*. 432a15–33a8. On Neoptolemus' Aristotelian roots see further Brink (1963) 1.51, 57–8, 93–100; Hadju (2014) 29–32.

[363] The full system also includes the poet (ποιητής) and/or his art (ποιητική). See Brink (1963) 1.54–74; Asmis (1992a) 211–5 *et passim*; Porter (1995a) 102–6 *et passim*; (2010) 116 with n. 190; Janko (2000) 152–3; Hadju (2014) 31–2; Steiner (2015) 105.

Given their intellectual background, it is not surprising that the Euphonists are engaged in a poetic project which, *mutatis mutandis*, looks strikingly similar to Aristoxenus' musicological efforts. Chapter 3 showed how Aristoxenus, motivated by an Aristotelian insistence on disciplinary integrity and terminological precision, attempted to define exactly what musical harmony is and how it can be evaluated purely on its own terms, which are those of sound as experienced by a trained human listener. Heracleodorus and Pausimachus, for their part, are not Peripatetics like Aristoxenus, but they have at their backs Andromenides and Neoptolemus, both of whom use Aristotelian modes of thought to distinguish uses of language which they consider characteristically poetic. The Euphonists therefore also try to mark off a critical space for poetic appreciation, and they too want that space to be one occupied wholly by the experience of listening: like Aristoxenus, Heracleodorus and Pausimachus are trying to isolate a particular kind of artistic sound and ask whether it is commendable according to the standards of the art as they define it. Some basic principles at the centre of Aristotelian thought (conceptual separation, theoretical purity) are thus emanating outwards into separate disciplines and being applied as those disciplines warrant – to poetry by the Euphonists and to music by Aristoxenus.

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[364] See Phld. *Po*. 5.XIII.32–XIV.2: [ἀ]λλὰ μὴν ὅ̣ [γε Νεοπ]τόλεμος (. . .) [ἔδοξ]ε τὴν σύνθεσιν [τῆς λέξε]ω[ς τ]ῶν διανοημ[άτων χωρί]ζει̣ν, XIV.27–9: τῆ[ς] ποήσεω[ς] εἶναι τ[ὴ]ν ὑπόθεσιν [μ]ό̣νον, XV.1–3: ποή[ματος μό]νον τὴν̣ [σύνθεσιν τῆς] λέξεως μ[ετέχειν]. See further Phld. *Po*. 5.XIV.31–3, where the *Iliad* is considered alternately as both πόημα and πόησις. Cf. Porter (1995a) 108–9.

[365] D.L. 7.60.1–6 (= *FDS* 594.11–16): σημαντικὸν ποίημα, μίμησιν περιέχον θείων καὶ ἀνθρωπείων. Cf. Varro *Sat. Men*. fr. 398, p. 67 Astbury (= *FDS* 605), and on the place and history of these definitions within the Τέχνη Περὶ Φωνῆς see Schenkeveld (1990) esp. 94, 98–9; Schenkeveld and Barnes (1999) 224.

[366] This pits the Euphonists against Gorgias (*Hel*. 9.54–5) but allies them with Aristotle (Arist. *Po*. 1447b13–24, 1451b27–9) if only in the belief that metre is not an essential feature of poetic language. Similarly Porter (1995a) 118–22, (2010) 242.

An essay which broke ground in describing this kind of phenomenon was written in 1907 by Wilhelm Kroll, who noticed that Greek stylistic criticism exhibits an '*Uebertragung von Kategorien aus einer fremden Disciplin*' and a '*Specialisirung von Erörterungen . . ., die ursprünglich für Musik, Poesie und Prosa galten*.'[367] Since then scholarship on Philodemus, inspired by Kroll's observations, has pointed out that Euphonists tend to use musical terms in describing the words of poetry.[368] Thus for example Andromenides refers to the φθόγγοι exhibited by syllables, and Pausimachus compares beautiful pitch–accentuation to the proper relaxation of tension (ἄνεσις) in an instrument (ὄργανον), which achieves attunement

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[367] See Kroll (1907) 93–6, esp. 96 n. 1. Kroll's remarks apply in particular to Dionysius of Halicarnassus, but he is identifying a phenomenon which is observable in many other authors, including the Euphonists.

[368] See Koller (1954) 137–42; Pohl (1968) 121–6, 157–9; Porter (1995b) 97–8, 140–1, (2001) 328–33, (2010) 322–3, 369–71, 492–4; Janko (2000) 134–8 (on *P.Herc.* 1677.VI.5–28, Phld. *Po.* 5.III.13–VI.5), 173–6.

(ἁρμογή).[369] But these are manifestly descriptions of words, unaccompanied by (or at least considered in isolation from) the clean jumps between sustained pitches which Aristoxenus would have considered melody. This becomes particularly clear when Pausimachus embarks on his discussion of tuning (ἁρμογή), which is a discussion limited to verbal accent without reference to musical melody — even though the artists under scrutiny are Timotheus and Euripides, for whom melody and pitch accent often diverged.[370] The Euphonist project, then, is about the sounds of words specifically in isolation from music, even if Euphonists talk about those sounds using terminology that looks musicological to us. In modern parlance we might be tempted to claim that the Euphonists are saying something like 'words have a music all their own.' But that is not quite right: words like φθόγγος and ἁρμογή are being applied to poetry here not as borrowings from musicology but as terms appropriate for describing all kinds of artistic aural experience. They belong not primarily to music but to hearing, and the Euphonists' point is that poetry and music are both kinds of artistically arranged 'atoms' of sound – the former is a σύνθεσις of letters, the latter a σύνθεσις of notes. Aristoxenus, as we saw, said much the same thing.[371]

But we also saw that Aristoxenus had a way of incorporating both semantic content and representational meaning into his full scheme of evaluation for a complete musical poem. In Aristoxenus, things like harmony and rhythm must be evaluated in aspectual separation from things like linguistic meaning alongside which they may occur simultaneously. But a whole poem, which comes as a unified composition involving music and language, is conveying some one referent which can – indeed must – be incorporated into our final evaluation of whether the unique rules of harmony, rhythm, and lexical arrangement have been put to good or bad use. The question arises, therefore, whether the Euphonists had a similar theoretical approach – whether there was a Euphonist way of incorporating the meaning communicated by a series of words into our final assessment of that series. Perhaps for Heracleodorus and Pausimachus poetry, properly defined, is pure sound without any semantic content. But does that sound convey anything to us other than the fact of itself? And is there some way of considering a composition's poetic elements alongside or in tandem with its semantic properties?

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[369] Phld. *Po.* 1.XXI.1–14, XCIII.19–XCIV.3.
[370] See West (1992) 198–9, 357–8, 361–4 with D.H. *Comp.* 11.93–119; Pöhlmann and West (2001) 16–17; Csapo (2004) 223–5; Csapo and Wilson (2009) 287–90; D'Angour (2018a) 58–60; Thomas (2018) 99–100, 107–9. Cf. Barker (1984–9) 1.93–8; Hordern (2002) 34–5. Note also that the ῥυθμικὴ θεωρία discussed at Phld. *Po.* 1.CI.2–IV.10 turns out to be a study of linguistic metre, not musical rhythm.
[371] See above, pp. 100–107.

There are some fragments of *On Poems* which seem at first blush to suggest that the answer is, 'no.' In particular, the Euphonists' endorsement of pleasure as a primary benefit of poetic experience might seem to indicate that they do not think poetry conveys anything other than an enjoyable sensory experience. Of course, all of the theorists examined so far acknowledge the obvious fact that hearing beautiful sounds stimulates sensory pleasure. But those whom we have discussed up to this point also think that melody contains some content other than mere sound, and most seem to agree that communicating such content is the primary purpose of music to which pleasure is at best instrumental. Ἡδονή for Plato, Aristotle, and Diogenes was a means of encouraging and reinforcing the emotional shifts and ethical habituation that music ultimately generates by way of its mimetic kinship with psychological states and/or cosmic order. Consequently, as we have also seen, the pleasure of music becomes (especially for Plato) a dangerous two–edged sword – it is capable of attracting uneducated listeners to an edifying encounter with music that expresses laudable emotions and virtues, but it can also seduce unsuspecting novices into enjoying music that portrays debasement and vice. Ἡδονή on this model accompanies our experience of musical poetry, but it is not the point of that experience, which is for us to receive a mimetic depiction of some psychological or cosmic reality. By contrast, Pausimachus embraces ἡδονή as a primary consequence of good poetic sound – poems succeed if the experience of listening to them is ἡδύ.[372] Heracleodorus, too, thinks that τέρψις and ἡδονή are marks of a successful poem.[373] This poetic pleasure may have a number of other effects on us – Heracleodorus writes that pleasant σύνθεσις 'creates enthralment (ψυχαγωγία)' in us.[374] For Pausimachus euphony 'moves the listener' and 'compels our nature to be uplifted.'[375] But these secondary effects invariably follow on from the pleasure of hearing lovely lexical sound, which is what carries us away, enthrals us, moves us, etc. It is not because music communicates something to us that we respond to it in this way, but because we like the feeling of hearing it, just as we might like the feeling of a massage or the taste of a meal and respond with uplift or delight.

If that is the end of the story, though, it becomes very difficult to account for another trend in Euphonist thought, which is the repeated endorsement of onomatopoeia as a hallmark of good poetry. This endorsement outlasts Andromenides, for whom it is natural, and comes up in Pausimachus and Heracleodorus, for whom it is initially somewhat puzzling. We can easily see why Andromenides might celebrate onomatopoetic diction, and he can do so without any incoherency in his theory. If our ears are supposed to be able to hear the characters and events described by a good poem as if they were there in our presence as we listen, then one obvious way of achieving that effect is to use words that sound like the things described. So at Phld. *Po.* 1.XIII.1–11, Andromenides quotes *Iliad* 2.210 as exemplary: αἰγιαλῷ μεγάλῳ βρέμεται, σμαραγεῖ δέ τε πόντος.[376] The line's phonemes are obviously mimetic, and Andromenides was far from the only one to highlight their striking aural quality.[377] He clearly did so here to substantiate his claim that the poet's definitive task is to achieve οἰκειότης between beautiful words and the content they describe. Apparently *Iliad* 2.210 is an example of a poetic word–arrangement whose construction succeeds according to these criteria: the sounds of its words both please the ears of their listener and call to mind the sounds of the thing being depicted, namely a crashing wave upon the seashore (using, presumably, its moaning Omegas, lurching dactyls, and evocative sonic descriptors such as βρέμεται and σμαραγεῖ). Homer has performed that distinctly poetic act which gives a series of words that definitive poetic loveliness, causing the uniquely satisfying match between the sounds of a series of words and the content which they depict. That special match is described in terms of τὸ πιθανόν, a kind of 'persuasiveness' which words have when their sounds convincingly depict the thing which they semantically describe.[378] Given what we have seen of how Andromenides' theory works, all of this plays out pretty much as one might expect.

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[372] Phld. *Po.* 1.L.23–8, LXXXIV.9–17, LXXXV.22c–26, XCIX.25–C.2, CXXII.1–2, CXXIII.8–14, CXXVI.17–20.

[373] Phld. *Po.* 1.CXCIII.6–11.

[374] *P. Herc.* 1676.IV.20–25: ἐξερ[γ]άζεται τὴν ψυχαγωγίαν.

[375] Phld. *Po.* 1.LXXXIV.9–20: τὴν φύσιν ἡμῶν [. . . . . ἀναγ]κάζε[ι] μεταιω[ρεῖσθαι]. CVI.11–4: [κ]ινεῖ τὸν ἀ[κούοντα].

[376] See also Phld. *Po.* 1.CLXXVIII.1–11.

Things are less straightforward when Heracleodorus and Pausimachus present their own endorsements of onomatopoeia, which they do regularly and apparently without self–consciousness. Pausimachus refers approvingly to poets who can imitate the sounds of the natural world, just like mimics who can 'bark and gibber and moo and hiss.'[379] Such language, we are told, 'moves' us to a certain sense of 'rightness,'[380] and 'all such words move the listener as seem to be correct because of their similarity to the experience of his ears.'[381] Heracleodorus even recommends that poets employ 'imitations of the underlying thought' (τοῦ [ν]οουμένου [. . . . . μι]μ[ήμ]ατ') in their diction.[382] But there is an obvious problem here: surely τὸ νοούμενον is exactly what the Euphonists spent their careers trying to exclude from the evaluation of poetry. If onomatopoeia pleases, is that not the result of our cognitively recognising a match between sound and sense? And if so, have we not now allowed the meaning of a poem's words to be part of its particular excellence?

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[377] See Janko (2000) 209 n. 4 on D.H. *Comp.* 16.1 and ΣbT *Il.* 2.210, to which we may add Eust. 310.8–17.

[378] This idea of τὸ πιθανόν as a characteristic of an aesthetically 'believable' description recalls Aristotle's use of the word to describe the persuasiveness that arises from appropriately composed style (*Rh.* 1414a26–8: τὸ πιθανὸν ἐκ τοῦ πρέποντος) and his assertion that ineptly chosen metaphors are ἀπίθανα (*Rh.* 1406b5–15). Cf. D.H. *Comp.* 11.4–7.

[379] Phld. *Po.* 1.CVI.6–10: ὑλακτε[ῖν καὶ τρίζειν] καὶ μυκᾶσθ[αι καὶ σίζειν].

[380] Phld. *Po.* 1.CXIV.10–8. 'Rightness' is my translation of ἐπιπρέπεια, which Janko assimilates to οἰκειότης and which must also be akin to τὸ πρέπον narrowly understood as an appropriate correspondence between phonetic sound and linguistic meaning. See [Longin.] *On the Sublime* 39.3; Janko (2000) 327 nn. 8–9; and above, pp. 160–62.

There are three different kinds of answer to this question, based on three different kinds of onomatopoeia. The first and simplest kind is indicated by Pausimachus' comparison between poets and those who 'bark and gibber and moo and hiss.' The poetry produced by such artists might be delightful because it contains words which both sound like animal noises and semantically describe the animals that make those noises – if I moo in the process of describing a cow, then I have added aural texture to the description which my words communicate, à la Andromenides. But perhaps you, my listener, do not understand the language in which I am speaking, and you have no idea whether the referent of my words is a cow or an octopus. If so, you might still enjoy and marvel at the fact that I can make linguistic sounds which mimic the sounds produced by a cow. In Pausimachus' words, you could appreciate that the sound of my verses bears a 'similarity to the experience of [your] ears' – e.g. the experience of your having heard a cow at some point in your life – without having had that experience simultaneously called to mind by the semantic referents of my poem's language.[383] In that case your pleasure in my mimetic language would be just one aspect of your pleasure in the sound of my words, entirely distinct from and unrelated to whatever meaning you may understand in those words – this kind of onomatopoeia, then, need not compromise the integrity of Euphonist thought.

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[381] Phld. *Po.* 1.CVI.11–4: πάντα (. . .) [τὰ τοιαῦ]τα [κ]ινεῖ τὸν ἀ[κούοντα], ὅσα δοκεῖ κα[τὰ τρόπον] εἶναι διὰ τὴν ὁ[μοιότητα] τῶι πάθει τῶ[ν ἀκοῶν].

[382] Phld. *Po.* 1.XLIX.27–9, soon to be reattributed to Heracleodorus by Janko (personal correspondence).

[383] Janko (2000) 315 n. 1 compares [Plut.] *De Hom*. 16.185–93; Dem. *De Eloc*. 94–5; Tryphon *De Fig.* 8.iii.197.1–2 Spengel. Cf. Rispoli (1986) 129–30. But perhaps closer to

That sort of mimicry, however, is not really what we mean when we use the term ‘onomatopoeia,’ which is something closer to Heracleodorus’ idea about ‘imitations of the underlying thought.’ That those who enjoy poetry appreciate such effects is plainly true and was widely recognised in antiquity – the Euphonists would have been hard–pressed to argue that noticing words which sound like what they describe is an experience that people never have when they listen to poetry. So they would have needed a way to account for such experience without conceding that the communication of semantic meaning is part of the poetic project.

They may have been able to generate such an account using the resources of linguistic atomism. We have already seen that Pausimachus in particular shares a great deal with the Stoics on this point: syllables, words, clauses, and sentences are built out of irreducibly small στοιχεῖα – the vowels, consonants, breathings, and accents which make up the rudiments of linguistic sound. A few further points about Stoic linguistics will help make sense out of Euphonism here. The Stoics distinguished the σημαινόμενον, the image or idea conveyed by a word, from the word itself (σημαῖνον, φωνή) and the actual object or thing described (τυγχάνον).[384] Like Aristotle, then, the Stoics interposed a mediating third term in between the thing described and the word which described it. This *tertium quid* was an idea – a cognitive impression of some thing or state of affairs that could be encoded into language and

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Pausimachus’ point that mimesis is praised in and of itself is Plu. *Moralia* 18b2–d7. Plutarch argues that we can deplore the events depicted in a poem while still appreciating the skill of the depiction, just as we dislike the sound of a pig’s squeal but applaud mimics who can imitate it. Similarly Arist. *Po*. 1448b5–15. Cf. Ademollo (2011) 273–4.

[384] S.E. *M.* 8.11–2 (= *FDS* 67); see Lloyd (1971) 58–63; Sluiter (1990) 22–6; Frede (1994) 118–21; Janko (2000) 389 n. 5.

then communicated between individuals via verbal utterance. Besides σημαινόμενον, another important Stoic name for the thought so communicated was λεκτόν, the 'sayable.' This too is neither the actual sound–structure of the words themselves as uttered, nor the thing meant to be described, but the state of affairs itself which could be grasped by the mind. The λεκτόν is one of only four 'incorporeals' in Stoic thought – things which are not physical, but which nevertheless 'subsist' as real things in the world.[385] The details of how λεκτά came into being out of a purely physical arrangement of verbal sounds are not specified in our surviving sources, and in fact this unexplained emergence of a non–physical entity in an otherwise purely corporeal universe was potentially quite embarrassing for the Stoics in the eyes of their adversaries. But the λεκτόν must somehow have emerged out of the particular arrangements of verbal sound which counted as meaningful – that is, out of the kind of λέξις which was so arranged as to qualify as σημαντική and so to become λόγος in Diogenes of Babylon's formulation.[386] Diogenes Laertius makes reference to some kind of μετάβασις, a 'changing over' from mere concatenations of letters into meaningful speech, which may refer to the appearance of a λεκτόν when syllables and words are properly arranged.[387] In any case, the most likely scenario is one of emergence or even supervenience: lexical sounds, when arranged the right way, give rise to (but are not themselves equivalent to) the meaning which the mind grasps.

Heracleodorus and Pausimachus both seem to agree with this account on a few key points. For one thing, poetic language in their view just is the arrangement, σύνθεσις, of lexical sounds next to one another. Upon a good poetic arrangement there supervenes

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[385] See above, p. 168 n. 352.
[386] See above, pp. 168–9 on esp. D.L. 7.56.3–57.7 (= *FDS* 476).
[387] See Long and Sedley (1987) 1.165 (on D.L. 7.53.7–8 [= *FDS* 255.58–60]), 199–202; de Harven (2015) 418–24, esp. n. 19. Cf. Lloyd (1971) 60–1.

(ἐπιγίγνεσθαι) the beautiful sound (εὐφωνία) that makes words qualify as poetry.[388] This model lines up pretty closely with the Stoic one: putting syllabic sounds next to each other in the right way causes there to appear something which is the whole point of using the kind of language under discussion. For the Stoics the salient kind of language is meaningful speech, out of which emerges some communicable idea, λεκτόν. For the Euphonists it is poetic diction, upon which supervenes εὐφωνία. But the question is whether the Euphonists also felt that some concept or idea might additionally emerge out of poetically arranged language even if that concept was not the point of doing the arranging in the first place. Once we have determined whether and how meaning came out of linguistic σύνθεσις for the Euphonists, then we can properly ask whether and how that meaning related to the sound which, properly speaking, was supposed to be the be–all and end–all of poetry.

There is one quite suggestive hint which points us in the direction of an answer. At Phld. *Po.* 1.XXXIII.1–5 we read, probably from Heracleodorus, that 'even if what is said ([τὸ λε]γόμενον) is unintelligible, the sound is the cause of understanding ([τ]οῦ συνιέναι) and of meaning ([τοῦ] σημαίνειν).'[389] I take [τὸ λε]γόμενον here to be something like the Stoic λεκτόν or σημαινόμενον, the conceptual meaning of an utterance communicated semantically by language to the mind. On one reading of this fragment, Heracleodorus is proposing a purely sonic kind of signification which is separate from the semantic meaning encoded by convention into words. We would then have a system of auditory symbols: making words sound like the sound of a thing is equivalent to designating that thing; mooing like a cow just is communicating the idea of a cow. This kind of signification could occur alongside the more conventional kind which communicates τὸ λεγόμενον. A word might (irrelevantly, for the purpose of Euphonist poetry) be designated as the word that communicates the idea of something being over forever: perhaps that word is ‘nevermore.’ But perhaps I also think that the sound of that same word sounds like the call of a certain kind of bird, in which case it has a ‘poetic’ meaning identical to that communicated semantically by the word ‘raven.’ Perhaps I am an English speaker and so I can perfectly well understand both meanings: the word both communicates the idea ‘nevermore’ to my mind (I can decode τὸ λεγόμενον) and also makes me picture a raven (because of its sound). But on this reading of Heracleodorus, to say that I understand the poem *as* a poem is only to indicate that I understand this second kind of meaning, which I get when I focus on the sounds. In that case, Edgar Allen Poe has written a poem about a raven; but he has written a set of statements, not a poem, about Lenore.

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[388] See especially *P. Herc.* 1676 VI.1–7 (with corrections from Janko (2011) 51 n. 2): σύ̣νθε[σιν μόνην ἰδίαν] ἐργάζεσ[θαι, καὶ (. . .) τὴν (. . .) ἐ]π̣[ιγει]ν̣ομένην [ε]ὐφωνίαν ἴδιον [εἶν]αι. Cf. Phld. *Po.* 1.CCVIII, 5.XXIV.27–32; *P. Herc.* 1676.VII.8–12; Janko (2000) 162 n. 6. On ἐπιγίγνεσθαι and the possibility that supervenience may be how beauty emerges from lovely aesthetic arrangements in Stoicism as well see Graver (2007) 29, 23–3; Celkyte (2017) 95–6 on Stob. *Ecl.* 2.62.15–63.5 Wachsmuth (= *SVF* 3.278, p. 68.22–34).

[389] Κἂν ἄγνωσ[τον τὸ λε]γόμενον ᾖ, αἴ[τιον εἶναι (sc. τὴν φωνὴν) τ]οῦ συνιέναι [καὶ τοῦ (. . .)] σημαίνειν.

This is a novel way of understanding poetry, but it is still not a μίμημα τοῦ νοουμένου. If νοουμένου is the right reading, then we cannot escape the fact that Heracleodorus has some idea of correspondence between the sound of a poem’s words and their cognitively communicated semantic meaning. There is no way to explain that idea using what remains from Heracleodorus, but there is a suggestion of how to do so contained in the fragments currently attributed to Pausimachus. After he advises us to ‘disregard the underlying thought for the time being’ while evaluating poetry, Pausimachus goes on to say that this approach is the only justified one, ‘since a parrot doesn’t know whether he’s reciting a line of tragedy, but just the same he achieves all the sounds just as a man does.’[390] Janko (2000) 181 furnishes the relevant intertexts for this apparent *non sequitur* – they are from

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[390] Phld. *Po.* 1.CXV.1–8: τὴν δ’ ὑπο[τετα]γμένην ἔνν[οιαν αὐτῆς ἀ]φῶμεν νῦν. οὐδ[ὲ γὰρ ὁ] σιττακὸς οἶδεν ε[ἰ τρα]γωιδίας λέ`γ´ει στί͙χ͙[ον, ἀλ]λ’ ὅμως ἀποτελεῖ [πάντας] τοὺς ἤχους οὕτω[ς ὡς] ὁ ἄνθρωπος. See Porter (1995a) 134–5; Janko (2000) 171–2.

Democritus (*VS* 68 fr. 154), Aristotle (*HA* 536b10–12, 597b27, 615b19) and Diogenes of Babylon (*apud* S.E. *M*. 8.275 = *FDS* 529.5–8, 1031.3–8). Of these, the first two effectively note that human speech exists on a continuum with animal voices: bestial cries move closer to language (Aristotle) or poetry (Democritus) as they become articulated, and parrots offer an intriguing middle ground between inchoate noise and intelligent speech. In the context of this continuum, Diogenes then puts his finger on the feature of human language that distinguishes it from avian speech: humans differ from animals 'not in language that is pronounced, but in language that is conceived in the mind (οὐχὶ τῷ προφορικῷ λόγῳ . . . ἀλλὰ τῷ ἐνδιαθέτῳ).' To really qualify as human language for Diogenes, an utterance must not only come out of the mouth as intelligible words, but must also have been uttered by a speaker whose mind intended the meaning that his words convey.[391] What Pausimachus means here is that this distinction does not usefully apply to poetic language. A line of tragedy has its full poetic effect even when repeated by a parrot, because the essential thing is not that the speaker have an idea to communicate in mind but that the listener experience the sounds of words which are poetically arranged. It is not that there was never any underlying thought (ὑπο[τετα]γμένην ἔνν[οιαν]) behind those words which contributed to their composition. It is that for the time being (νῦν) while we are evaluating those words as poetry, we can disregard the content or thought that may have been on the poet's mind. What matters is what the sounds do to us – they are enough, even if uncomprehendingly repeated by a parrot, to create in us the experience unique to poetry.

Notably, that experience does not exclude the conception of some idea that may arise in our minds as we listen to the language of a poem: it is not the listener, but the speaker, whose underlying thought is to be categorically excluded from our conception of poetic excellence. Pausimachus' point is that any experience at all which poetry may stimulate in a listener is generated, not by a corresponding idea in the poet's mind, but by the sounds themselves which have been arranged in a particular fashion. Elsewhere Pausimachus undertakes to prove that the loveliness of that arrangement is what motivates a poet's choice of word, whereas differences in meaning between similar words are of secondary concern.[392] So what happens when we hear a poem is just that we hear lexical sounds which have been arranged *qua* sounds, and that phenomenological experience alone prompts in us everything that a poem can prompt. It is not impossible, then, that this could involve images or ideas that arise in our mind: perhaps when I hear the sounds ψυχὴ δὲ κατὰ χθονὸς ἠΰτε καπνὸς ᾤχετο τετριγυῖα (*Il.* 23.100–1), I do indeed get the idea of a fallen warrior's soul fleeing to Hades because that idea arises as a λεκτόν out of the sounds so arranged. This enables me to discern and enjoy a 'rightness' (see above, p. 177 with n. 380) in the relationship between that λεκτόν and the sounds of the words which generate it, without ever suggesting that the generation of the λεκτόν which I perceive was any part of the poet's concern in composing his verses.

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[391] See further D.L. 7.55–6 (= *FDS* 476.5–8) with Frede (1994) 112.

Between Pausimachus and Heracleodorus, then, we have now found three points for the Euphonists to make which can preserve the power of mimetic verbal sound in their theory without dissolving into incoherence. First, words may simply sound like other things we have heard, completely irrespective of their semantic meanings. Second, we might argue that such similarity between the sound of a word and a thing in the world is its own kind of uniquely poetic signification which can occur simultaneously with, but independently from, semantic expression. And finally, even if poetically arranged words do happen to generate meaning, and even if we do notice a satisfying correspondence between that meaning and the way the words sound, we need not be contradicting the Euphonists' premises. We can simply claim that the semantic meaning is a secondary feature of the sound that the poet has arranged euphonically, a sort of 'by–product' which comes into being because the poet's euphonious σύνθεσις also happens to be a semantically valid verbal arrangement.

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[392] Phld. *Po.* 1.C.

b. The sounds of Homer: Euphonism in practice and as precursor to Philodemus' semiotics of music

Having designated a few valid options for Euphonist onomatopoeia, we can now turn to a run of Homeric citations which occurs between columns CVI and CIX of *On Poems* Book 1. These citations have not been closely analysed for what they tell us about how Euphonism might lead a critic to read a given poetic text. Doing so now will allow us to say more about the implications for poetic expression when Euphonist theory is practiced by our most extreme Euphonist, Pausimachus.[393] The passage in question is introduced with the Pausimachean assertion, already cited above, that all the Homeric lines which follow can be said to 'move the listener in what seems like the right way according to a similarity with the experience of his ears.'[394] Five of them do so in quite an obvious way. The first is *Il.* 23.100–1, in which the word τετριγυῖα mimics the 'gibbering' that it describes. There is also *Il* 21.260–1, where ὀχλεῦνται and κελαρύζει are said to make the verse apt (οἰκεῖον) by creating a resemblance that evokes a mass of pebbles 'jostling' at the bed of a 'gurgling' river.[395] Then there is a string of lines about the ocean in which, as in Andromenides, certain words are supposed to recreate the sound of waves crashing on the shore (κινήθη in *Il.* 2.144–

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[393] This in turn can be factored into our growing knowledge of how citation is used in ancient scholarship – on which see Perrone (2010); Phillips (2013) esp. 161–75; Montanari (2016). Tosi (1988) is an important earlier work.

[394] Phld. *Po.* 1.CVI.10–14: [κ]ịνεῖ τὸν ἀ[κούοντα,] ὅσα δοκεῖ κα[τὰ τρόπον] εἶναι διὰ τὴν ὁ[μοιότητα] τῷ͙ι πάθει τῷ̣[ν ἀκοῶν].

[395] Phld. *Po.* 1.CVIII.1–21; cf. Pausimachus' elaboration on this point at *P. Herc.* 994.XI.21–XII.9. See Hausrath (1889) 224; Sbordone (1983) 172–3; Janko (2000) 318–9 nn. 4–5.

5; βοόωσι in 17.265, and κυρτὰ φαληριόωντα in *Il.* 13.799).[396] Intriguingly, the first two of these lines share a feature which Andromenides' line (2.210) does not possess – they expressly liken the sound of the waves to that of the human voice shouting in a crowd.[397] We will return to the significance of this fact momentarily. For now we may complete this summary of the citations listed in this passage with the somewhat more ambiguous *Il* 22.448, 1.530, and *Od.* 11.206–8. The first two of these describe different kinds of shaking – that of Andromache's limbs upon hearing the news of Hector's death, and that of Olympus when Zeus nods assent to Thetis' request that he assist Achilles. It is not immediately clear that the first of these should make a sound which the word 'shook' might imitate, but in light of the rest of the citations it seems quite likely that this is what is meant. Perhaps, then, the point is that the two forms of ἐλελίζω used in these two lines (ἐλελίχθη for Andromache, ἐλέλιξεν for Olympus) both use the ἐλελι– sequence to recreate the iterative nature of the noise often produced by shaking, but the rough, aspirated –χθη suggests garments rustling on a woman's body whereas the firmer –ξεν gives the solid rumbling of the great mountain.[398] In any case the point is very probably aural mimicry once again, as it is also in *Od.* 11.206–8. Here, though, the words imitate not the sound of the thing described, but the sound of the speaker doing the describing.[399] Odysseus is telling the story of trying to embrace his mother's phantom, and Homer, says Pausimachus, here uses his sound to depict Odysseus 'speaking and marveling' – perhaps the critic is referring to the tripping repetition of the word τρίς and the long run of 'narrow' vowels in σκιῆι ἴκελον.[400] Odysseus is saying that his mother's ghost

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[396] Phld. *Po.* 1.CVIII.16–CIX.1. Many of these lines were well–known for their mimetic 'sound effects' — see e.g. Σ AbT *Il.* 17.265 and Σ bT *Il.* 13.799, and for further citations see Janko (2000) 319 nn. 5–10.

[397] 13.799, like Andromenides' 2.210, evokes not (or not only) the voice but the sound of footfalls and scuffling as a crowd moves into place.

[398] Similarly Janko (2000) 317 n. 6.

[399] *Pace* Janko (2000) 317 n. 4.

[400] Phld. *Po.* 1.CVI.17–CVII.3: λέγοντα καὶ περιβλέψαντα. For this sense of περιβλέπω see Janko (2000) 317 n. 2.

'fled like a shadow,' but the words, according to Pausimachus, are composed by Homer so as to mimic not the ghost's motion but Odysseus' stuttering words of shock and near–disbelief in the retelling. This too will be of consequence shortly. But first, now that we have completed our review of the citations, we may make a few observations about the kind of onomatopoeia that is at play in all of them.

Augustine gives an account of Stoic onomatopoeia in which he makes clear that the sounds of words may very easily be made to imitate *res quae non sonant* – in a kind of verbal synesthesia, mellifluous syllables can recreate the sweet taste of honey, while rough ones can evoke the grating touch of unfinished wood.[401] We have already seen a number of etymological models, most notably Plato's, in which syllabic sound expressly does not recreate the actual noises made by the referent, but somehow resembles or encapsulates the soundless essence of the thing described. We may also think in this context of Chrysippus' famous (if amusing) etymology of ἐγώ, in which the pointing of the speaker's chin towards himself indicates the meaning of the word.[402] The world of ancient stylistics and etymology, then, recognised a number of ways in which words may exhibit similarity to some aspect of their referents besides a simple 'one–to–one' correspondence between verbal sound and the sound of the thing described. One consequently notable feature of the citations examined above is that none of them fits with any of these alternative models. These Homeric examples are all, without exception, instances of sonic mimicry: Homer's syllables are held to sound like brooks, or oceans, or roaring crowds. These are lines which could at least conceivably generate understanding in the mind even of a Barbarian listener: someone who did not speak a word of Greek could potentially hear in their phonemes the sounds of a gurgling stream or a crashing wave. Even if the listener did understand the words' semantic meaning and praised the sounds on the basis of their appropriateness for that meaning, Pausimachus could claim that the understanding itself was secondary, a happily coincident consequence of the verbal arrangements which were themselves chosen purely for the sake of euphony.

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[401] Augustine *De Dialectica* 6. See further Lloyd (1971) 62–5; Long (2005) 41–2. On the permeability of sense boundaries in antiquity see LeVen (2013) 234–9 *et passim*.
[402] Gal. *PHP* II 2.10–11. Cf. Pl. *Cra*. 422e1–3b3.

With this fact in mind it is worth paying some particular attention to the citations which describe human speech. Two of the similes quoted, as we have seen, liken the roaring of the ocean to the roaring of a crowd. The choice is an appropriate one for Pausimachus' point. In a wash of sound such as a mob outcry or the shouts of an army, human speech loses the two qualities which distinguish it in ancient theory from the other sounds of the natural world. One of these features we have already explored: the inwardly generated thought which is supposed to be the distinguishing feature of human language would either be completely absent in the shouting of a mob, or else entirely unintelligible even to a discerning listener. But a crowd's roar also lacks the articulation which was supposed by Stoics and Peripatetics alike to be a necessary, if not a sufficient, condition of intelligent speech – at least for the listener, this is not ἔναρθρος φωνή.[403] These examples are therefore consistent with the claim Pausimachus made by way of reference to parrots, that the salient features of human speech for poetry are purely sonic and have nothing to do with the speaker's expressive intentions. In poetic and onomatopoetic terms, the human voice is a noise like any other in the world around us, not essentially different from the sounds of water or animals.

This aspect of Pausimachus' theory is perhaps most consequential when it comes to the citation from the *Odyssey*. We have seen that the sounds of Odysseus' speech are being replicated in Homer's language, and we can recall that this kind of vocal reproduction was of paramount importance for Plato's semiotics of musical poetry in the *Republic*. But the point there could not have been more different: for Plato's Socrates the tonal contours, syllabic structures, and linguistic phonemes of a character's words were mimetic of his thoughts and feelings. The sounds of words and their attendant music therefore resembled not any audible sound, but rather the structural makeup of some expressly inaudible and otherwise imperceptible thing such as an ethical disposition or emotional attitude. Indeed, in the *Cratylus* Plato has Socrates say, in direct contradiction of Heracleodorus, that linguistic communication is not concerned with the literal reproduction of referents such as animal sounds. Barking, gibbering, and hissing are therefore completely distinct from saying 'dog,' 'monkey,' or 'snake.'[404] Euphonist poetics involves ignoring, or at least not focussing on, the internal state of a speaker which may be implied by, or encoded within, the sounds of his words. For a Euphonist, it is the sounds themselves which are the point, whether they be those of the human voice or those of a babbling brook. It may be the case that our appreciation of those sounds coincides with our awareness that they are also language and so contain semantic meanings. But for the purposes of appreciating poetry, we are to avoid paying attention to what we think those semantic meanings might say about realities external to our own sensory experience: I might hear the words 'here be monsters' and have the experience of picturing monsters in addition to the experience of hearing sounds. But if I then infer that the former experience tells me about the actual presence of monsters, or informs me that my interlocutor thinks there are monsters here, I have moved beyond the realm of poetry and into the realm of dialectic.[405]

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[403] See D.L. 7.55 (= *FDS* 476.2–7). Cf. Arist. *HA* 488a33, 405b2; *Int*. 16a29; *Poet*. 1456a20; [Arist.] *Pr*. 895a7–14 and above, pp. 183–4.

Euphonism represents the furthest extremes of Peripatetic χωρισμός as applied to artistic criticism. In their ever more dogmatic attempts to stake out a uniquely poetic territory within the field of language use and analysis, the Euphonists eventually arrived at a model in which for language to be poetic, it must be used in purely sensory ways. This does not mean that it communicates or expresses nothing, but it does mean that its communication and expression are vestigial features inessential to its nature as a poem. Thus meaning may be part of our experience of poetic language, but it may or may not serve any of the functions that we usually expect meaning to serve. The sounds of poetic words might call ideas to mind, but there is no way for us to know or reason for us to care whether those ideas correspond accurately with anything outside of ourselves – any idea in the mind of the speaker or reality in the world around us. In this, the Euphonists travel down the same theoretical track in poetic criticism that Aristoxenus treads in musicology. But the Euphonists seem to go further down their road: Aristoxenus wanted to exclude ethical content from the study of harmonics, not the study of music; whereas the Euphonists apparently want to exclude meaning of all kinds from the proper understanding of what a poem, or at least a ποίημα, fundamentally is.[406]

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[404] Pl. *Cra*. 423c1–9.

[405] Thus the Euphonists regard lexical sound much as Kivy (1980) 54–6 regards melody and harmony – as expressive of internal states, but not necessarily as indicating that those internal states actually exist or ever existed in the mind of the composer.

That is an extreme view, but no longer a surprising one in light of the trains of thought which we can see preceding and generating Euphonism. What is quite unexpected, however, is the fact that Philodemus' views on music turn out to have relied in part on principles of criticism and definition which look almost identical to those of the Euphonists. It is obvious that Philodemus' relationship to Euphonism was intensely adversarial, and we will see shortly how he undertakes to dismantle Euphonist thought. But this hostility towards Andromenides, Heracleodorus, and Pausimachus can obscure the fact that their aspectual distinction between sound and sense is a crucial premise of Philodemus' attack on Diogenes' ἦθος theory. By observing the points which Philodemus cedes to the Euphonists, we will be able to observe how their post–Aristotelian criticism actually paved the way for Philodemus to deny that music can mean anything at all.

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[406] We should not rule out the possibility, however, that this is only true for the treatments of ποίημα which Philodemus preserves. Perhaps there are other treatises in which the Euphonists, like Aristoxenus, ascribed the consideration of poetic meaning to another realm of the compositional art (i.e. that of ποίησις).

Chapter VI

‘Meaningless Noises’: Philodemus Dismantles Musical Ἦθος

In Philodemus’ Epicurean aesthetics we come up against theories of sound, art, and music which, whatever their philosophical merits, are almost unique in constituting a fully outworked ancient alternative to the view that sound can have an artistic value in itself as a bearer of significance. Plato, Aristotle, Aristoxenus, and Diogenes have all proven themselves proponents of the idea that melodies naturally resemble the movements of the human soul in emotional activity, so that musical sound can give emotional content to the ideas communicated by verbal language. Even the Euphonists did not strip sound of this potential to communicate with and affect the human consciousness. Their project was to isolate the sensory experience of sound in conceptual abstraction. But as we have seen they did not deny that the sounds so isolated might also bear resemblances to the natural world or otherwise contain encoded within them images and ideas for the mind to grasp. They simply felt that this was a function that sounds performed as prose or speech, not as poetry. Philodemus, on the other hand, wanted to say that it is in the nature of all sound to be inherently meaningless. A bedrock premise of his aesthetic criticism is the stipulation that sensory stimulation and rational signification are two fundamentally separate things which only accidentally coincide. We communicate ideas to one another by using language – that is, by conventionally assigning to written or spoken syllables a set of ideas which bear no intrinsic relation to those syllables in themselves.[407] Completely separate from this human activity is the brute fact that our bodies respond to physical stimulation of all kinds with pleasure and pain: the taste of food, the sight of colors, and the sound of words alike are examples of things which might make our physical organism respond by feeling good or bad. In this capacity syllables are among any number of sounds – birdsong, instrumental music, and the rush of waterfalls would be other examples – which we experience with physical satisfaction or distaste. It just so happens that we have also used those syllables as raw material for the completely separate endeavor of using tokens to indicate the thoughts and experiences we are having.

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[407] The spontaneous generation of such syllables with which language formation begins for the Epicureans results from a natural usage of sound as language, but not in an intrinsic resemblance or correspondence between the particular sounds chosen and the referent denoted – see below, pp. 196–8.

Philodemus' semiotics of music – or rather, his anti–semiotics of music – is therefore founded on an act of definition which departs radically from the Peripatetic and Stoic attempts to define poetry and song which we have explored thus far. The essence of this Philodemean definition is contained in a striking pronouncement from *On Music* CXLIII.30–3. Here the Epicurean declares that Pindar and Simonides, 'insofar as they were musicians, made meaningless noises. But insofar as they were poets, they composed meaningful words.'[408] The point here is that poets use language – that is, the sounds in which they construct their art have had conceptual meanings attached to them and so can be used to persuade, instruct, describe, and depict. Musicians, by contrast, are defined as those who use sound for its sensory, and not its significant, properties. As will become clear, this is very subtly but crucially different from saying that 'poems have meaning but melodies do not.' What Philodemus is actually saying is closer to 'using sound to convey meaning is part of the act that makes someone a poet, whereas using sound to please the senses is part of the act that makes someone a musician.' Someone could therefore use words 'musically' by using lexical sound merely to please the ear, or he could use melody 'poetically' by using a particular sequence of notes to stand in for a particular idea – we will see examples of both in this chapter.

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[408] Καθὸ [μ]ẹ̀ṇ μουσικοὶ τὰ ἀσήμαṇτα, κ[α]θὸ δὲ ποιηταὶ πεποιηκέṇ[α]ι τοὺς λόγους.

What will also become clear is that this critique of music as a bearer of meaning, though it is leveled at Diogenes, is in some sense imported from Philodemus' grapplings with Euphonism. In *On Poems*, Philodemus refutes the Euphonists by first conceding to them the point that a poem, or any verbal composition, may be considered purely in its capacity as a string of sounds. But, Philodemus wants to claim, so to consider a poem is to deprive it of its status as language and thus to denude it of any effect it may have on the listener other than that of physical stimulation. In *On Poems*, this argument emerges as a Philodemean distinction between words considered from a (Euphonist) poetic standpoint, that is, as pure sound, and words considered from a linguistic standpoint, that is, as bearers of meaning and influencers of thought. But in *On Music*, this distinction between types of language use has been elided because the important distinction is between the musical and the poetic use of sound – there, poets are constructors of meaning because their art uses words, whereas musicians merely string tones together. The delicate interplay between these two modes of talking about music and poetry, and the ideas which Philodemus carries from one arena of critical debate to another, will be a focus of this chapter. Out of that interplay will emerge an Epicurean aesthetic theory which aims to separate entirely the act of communicating from the act of causing sensory pleasure, so that sound in itself can have no meaning other than that which language users assign to it.

This leaves Philodemus with what I have called an anti–semiotics of music, in which music is by definition the kind of sound which has no meaning and merely stimulates our perceptual organs. This very emphatic claim goes beyond even that of the Hibeh papyrus, which does not do more than reject the notion that musical modes, considered in themselves, have any inherent connection to ethical attitudes or dispositions. Philodemus wants to say that no sound at all can have any such connection either to ethical character or to any other thing besides sound itself. In order to defend that position the Epicurean must refute nearly all of the arguments which we have been extracting from his predecessors. He must in particular deal fatal blows to the underlying premises of ἦθος theory as propounded by Plato and reanimated by Diogenes. The often convoluted routes along which Philodemus mounts his assault on that long intellectual tradition will also be subjects of this chapter, and will conclude our examination of the diverse responses to Platonic semiotics in poetic and musical criticism which emerged in and after the work of Aristotle and Aristoxenus.

I. Signs of Thoughts: Epicurean linguistics and Philodemus' definition of music

a. Language: The semantic use of sound

Philodemus is known for a rather doctrinaire commitment to the philosophical premises articulated in the extant works of Epicurus. But in his aesthetic works this commitment is complicated by the fact that, so far as we can see, there did not exactly exist a mainline Epicurean teaching on the value and appreciation of literary art. Epicurus was rumored to have deplored the centrality of poetry in Greek education, probably because he wanted to prioritise rationalist enquiry over cultural canonicity and received wisdom. Whatever the worth of poetry for Epicurus, it could not have been as a repository for the collective knowledge of his society to be passed unthinkingly along to the young by rote memorisation.[409] This has led some modern interpreters to form an incomplete picture of the Epicureans as willful philistines, and some of the scholarship on Philodemus that emerged in the 1990s used the aesthetic works, alongside readings of the Epicurean fragments and Philodemus' own poems, to correct that misapprehension. Epicureans did not advocate looking to poetry for philosophical education, but as long as a poem contained no philosophical untruths it could be enjoyed for what pleasure it offered.[410] Homer was not to be read for education as one would read a textbook, but neither was the delectation of his verses to be denied a marginal place in the Garden.

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[409] See Asmis (1995a) 18–20, (1995b) 155; Raffa (2018) 41 on *inter alia* Plu. *Moralia* 1095c3–7; D.L. 10.6.6–7 (= Epicur. frr. 12.2, 89 Arrighetti).
[410] See Asmis (1995a); Sider (1995) 45–57.

In philosophical works such as *On Poems* and *On Music*, however, Philodemus has set himself the task of doing more than simply accepting poetry as a possible source of minor pleasure: he must articulate the nature of that pleasure, and describe why he takes a different view of its worth than almost all of his contemporaries and predecessors. In particular he must argue that artistically composed language does not communicate more effectively or clearly to the human mind than straightforward speech or writing in everyday prose: he needs to argue, *contra* the entire ἦθος–theory tradition, that adding things like rhythm and melody to words does not lend to them any kind of communicative or affective efficacy beyond what they already had in their capacity as plain language. His philosophical basis for making that argument is to be found in the Epicurean teachings on the nature of language and signification which, understood together, form the backdrop for understanding why and how Philodemus argues that musical sound cannot mean or express anything.

Epicurus expounds his theory of human language formation in a rich and difficult passage from the *Epistle to Herodotus* (75.6–6.7). The interpretational problems which this passage presents are manifold, but it is possible to extract from it the major points which underlie the working definition of language with which Philodemus is operating and against which he undertakes to define both poetry and music. The passage itself reads as follows:

> (ὑποληπτέον) καὶ τὰ ὀνόματα ἐξ ἀρχῆς μὴ θέσει γενέσθαι, ἀλλ᾽ αὐτὰς τὰς φύσεις τῶν ἀνθρώπων καθ᾽ ἕκαστα ἔθνη ἴδια πασχούσας πάθη καὶ ἴδια λαμβανούσας φαντάσματα ἰδίως τὸν ἀέρα ἐκπέμπειν στελλόμενον ὑφ᾽ ἑκάστων τῶν παθῶν καὶ τῶν φαντασμάτων, . . . ὕστερον δὲ κοινῶς καθ᾽ ἕκαστα ἔθνη τὰ ἴδια τεθῆναι πρὸς τὸ τὰς δηλώσεις ἧττον ἀμφιβόλους γενέσθαι ἀλλήλοις καὶ συντομωτέρως δηλουμένας.
>
> (We must suppose that) names, too, did not come about by convention at first, but that the very natures of men within each community, undergoing their own affections and receiving their own impressions, individually emitted breath that was arranged according to each of those affections and impressions . . . . Then later they assigned their own names together within each community with the goal of making their indications more succinct and less ambiguous to one another.

Here Epicurus imagines that primitive men experienced φαντάσματα (images of the outside world via sensory input) and πάθη (impressions and effects upon the soul generated by such input).[411] Those φαντάσματα and πάθη shaped the air within primitive percipients, and that air was then emitted in a particular configuration which manifested as sound.[412] So the first words bore a natural relationship to the physical impressions made upon their speakers by the outside world – that is, they were naturally generated by, but not resemblant of, their referents. From then on, however, 'they assigned their own names together within each community with the goal of making their indications more succinct and less ambiguous to one another.' The details of this process are opaque and controversial, but for a rough idea we may imagine obviously expressive sounds generated by impulse but then refined into the articulate speech whereby we communicate ideas more precisely.[413] To give an example: perhaps when I as a man in the state of nature see and smell a juicy steak I might instinctively make the sound 'mmmm.' But once I have conferred among my fellow men and women we might agree together that we can represent our exact internal experience more precisely to one another by emitting the sounds, 'that steak looks delicious; give it here.' Mackey (2015) 76–83 has composed an edition of *PHerc.* 403 fr. 5.I which shows that Philodemus adopted this Epicurean linguistic theory and argued that poetic language developed during the later, conventional stage. For Philodemus, then, poetic turns of phrase, as well as probably any utterance more sophisticated than the most basic uninflected nouns and adjectives, conveyed their meanings not naturally but because they had conventional meanings encoded within them by cultural *fiat*.

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[411] On the atomistic mechanisms whereby the Epicurean soul receives sensory input from the outside world, see Epicur. *Ep. ad Her.* 64.7–10; Phld. *De Morte* VIII.2–7 Henry; Conche (1987) 162 n. 9; Annas (1992) 149; Warren (2002) 199–200; Henry (2009) 17 n. 23; Drozdek (2010) 44. For Philodemus' acceptance of this view see further Von Staden (2000) 80.

[412] See Long and Sedley (1987) 1.90; Mackey (2015) 70–76.

[413] On the exact stages of this process, which are left ambiguous in the letter and have been the subject of much debate, see Long and Sedley (1987) 1.101; Schenkeveld & Barnes (1999) 180; Holmes (2005) 557–560; Mackey (2015) 73.

What needs stressing about this theory here is that it understands words as instances of δήλωσις, 'manifestation' or 'making perceptible' (*Ep. ad Her.* 76.3–4). There are many instances of this word which simply mean 'showing' in a general sense – as when vivid language depicts the situation it describes, or when an action is performed such that it reveals the true character of the person performing it.[414] This meaning is not unrelated to what Epicurus is saying, but his use of the word needs to be fitted more precisely into his technical philosophical vocabulary. Although δήλωσις itself is nowhere else to be found in Epicurus' extant writing, the concept of τὸ ἄδηλον is a crucial one for his philosophy of σημείωσις, the process of communication and inference by signs. A little earlier in the *Epistle to Herodotus* (38), we are told that the first task of a philosopher is to understand thoroughly the meaning of his basic terms, 'so that we can have a means of indicating by signs (ὅπως ἂν . . . ἔχωμεν οἷς σημειωσόμεθα) both that which is present to our senses, and that which is imperceptible (τὸ ἄδηλον). And once we have grasped these we can make inferences about imperceptible things (περὶ τῶν ἀδήλων).'[415]

A σημεῖον for Epicurus is something directly present to our senses from which we can reliably infer the existence or characteristics of something imperceptible (τὸ ἄδηλον).[416] For Epicurus to call words δηλώσεις and say that they δηλοῦνται therefore suggests that he had some notion of them as σημεῖα which can reveal some imperceptible thing. We can find a likely candidate for that imperceptible thing in the ἴδια πάθη and φαντάσματα which prompt humans to emit the sounds of language in the first place. What I do when I speak or write is use something perceptible (the audible σημεῖα of uttered sounds or the visible ones of written language) to indicate to my interlocutor the existence and nature of something which is to him imperceptible (my πάθη and φαντάσματα, or the private internal experiences which I am undergoing as a result of encountering something in the outside world).[417]

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[414] So D.L. 7.59.4–6; Plu. *Vit. Alex.* 1.2.

[415] Cf. D.L. 10.32.8–11.

[416] See further below, p. 229 n. 462 on ἀντιμαρτύρησις. I take it that Asmis (1984) 193–4 is correct in refuting the widespread division of ἄδηλα into things imperceptible by nature and things which happen to be imperceptible because of circumstances which currently render them beyond the reach of our senses. Ultimately the question is irrelevant to our purposes since the internal experiences of which I believe words are meant to serve as signs in Epicurus must at least be permanently inaccessible to direct sensory perception by others.

We know that here again Philodemus endorsed Epicurus' views entirely, because he wrote a work on σημείωσις in which he espoused and defended the Epicurean doctrine at length.[418] For him, too, σημεῖα are capable of acting as perceptible indicators of imperceptible things, and it is very likely that the sounds of language do just that. When Philodemus talks about names (ὀνόματα), he uses the language of σημείωσις and speaks of 'the things signified through sounds' (τὰ̣ [ση]μ̣αινόμενα διὰ τ̣ῶν̣ φ̣ω̣νῶν) – that is, the ideas and experiences for which syllables and words stand in as tokens.[419] What is at work here is a definition of language as just those sounds (φωναί) which, first through spontaneous impulse and then through cultural convention, we have learned to associate with the presence of a particular thought or feeling in our interlocutor, so that when we hear him or her emit such sounds we can infer that he or she is having that thought or feeling. Thus though I cannot see or hear your thoughts – they belong to the realm of τὸ ἄδηλον – we may agree to use sounds as perceptible σημεῖα wherefrom I can derive accurate inferences about what you are thinking and feeling.

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[417] Similarly Mackey (2015) 73–4 points out that the final stage of language formation also reveals οὐ συνορώμενα πράγματα, which, given Epicurus' usage of συνορᾶν (see Verlinsky (2005) 80) must refer to the indication of abstract concepts not previously contemplated by the interlocutor (cf. Cole (1967) 62; Sedley (1973) 19).

[418] Cf. De Lacy and De Lacy (1978) 185–9; Asmis (1984) 197–211. For particular arguments about inference of τὸ ἄδηλον from signs, see esp. Phld. *De Sig.* I.1–19, XIV.2–27.

[419] Phld. *Mus.* 4.CXLI.24–7, cf. XXXVIII.13–6.

b. Music: The non–semantic use of sound

If Philodemus' working definition of spoken language is 'sounds assigned to serve as tokens for thoughts,' his working definition of music is 'tonal and rhythmic sounds which do not function as language.' This is particularly clear when he denies that music and poetry can enlighten anyone not schooled in the ways of philosophy: those who think that such arts can confer wisdom or virtue are mistaken, because 'tunes and rhythms' (τὰ μέλη καὶ τοὺς ῥυθμοὺς) cannot do anything of the kind 'without signification' (ἄνευ σημασίας).[420] Sometimes, Philodemus says, people have claimed that musical sound can contain edifying content because songs are used to instil virtue in children. But those people have made a grave error: insofar as poetry affects our actions at all, it does so because its language communicates ethical instruction. The melody and rhythm in which that language is packaged merely makes the learning more attractive because of the sensory pleasure it causes, after the fashion of the famous 'honeyed cup' metaphor.[421] This is true almost by definition: those who communicate thoughts and so influence action are those who use language, whereas 'we consider musicians to be those who teach things without signification' (καταξιοῦμεν ἀσήμαντα διδάσκειν τοὺς μουσικούς). That is, musicians are defined as those who contribute to ethical teaching the meaningless sounds which make that teaching pleasurable. Immediately after this Philodemus introduces Pindar and Simonides, and goes on to make the claim about them with which I began this chapter: 'insofar as they were musicians, they made meaningless noises. But insofar as they were poets, they composed meaningful words.' Poets, as users of language, can communicate instructive ideas. But

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[420] Phld. *Mus*. 4.CXL.14–35.

[421] This metaphor is of course made famous to us by another Epicurean, Lucretius (*DRM* 1.936–50, 4.11–25 — for the repetition and discussion see Bailey (1947) 757–60, 1178–9). But the idea or some version of it is not alien to Plato, nor indeed to many others: see Pl. *Lg*. 659e4–60a3; Hor. *S*. 1.1.24–6; Ignatius *Epistle to the Trallians* 6.2.

Philodemus, as he says shortly thereafter (*Mus*. 4. CXLIII.39–43), wants to define μουσική as specifically the sounds of melodies and rhythms, distinct from the language which makes up ποιητική: ‘if someone calls “μουσική” something else in contradistinction to the entire species of “ποιητική,” separating out the bare melodies and rhythms, I say that he’s done so properly.’[422]

Thus it is that music becomes specifically that tonal and rhythmic sound which does not have any sort of meaning ascribed to it. Philodemus demonstrates that he is willing to follow the implications of this distinction to its furthest conclusions, so that even sounds usually considered ‘music’ can be considered as a kind of ‘language’ for him if they have meanings assigned conventionally to them. This becomes clear when Philodemus takes Diogenes to task for using the military trumpet as proof that musical sound can rouse military courage. That passage is *On Music* 4.LXVIII.33–40, LXIX.7–12:

> οὐδ’ αὐτὴ μὲν τ[ῶι
> κακ]ῶι θ̣υμὸν ἐγείρει· μάτ[αι–
> ον] γὰρ ἂν τὸν τῶν σαλ[πίγγων
> ἦχο]ν ἔχειν· νῦν δ’ ἐλάφ[ων γε
> ὁπ]λῖται τινὲς δειλότερο[ι, ση–
> μη]ν̣άντων ἂν τῶν α[ὐλῶν, ὁ–
> ρῶ]ν̣τ̣[αι], νῦν δ’ ἔνιοι στάν[τες
> ἀτρεμ]εὶ καὶ πανταχοῦ [. . . .
> (. . .)
> τισὶ δὲ καὶ τῶι συμπλέκε–
> σ]θαι ταῖς μάχαις τὴν τοιαύ–
> τ]ην φωνὴν καὶ παρακλη–
> τι]κὸν παρέχειν σημεῖον ἐξ
> ὑπολήψεως ἐγείρεται παρά–
> σ]τ̣ημα πρὸ[ς τοὺ]ς κινδύνους̣.
>
> LXVIII.35–6 σαλ[πίγγων | ἦχο]ν ἔχειν Janko : σαλ[πίγγω] | ν ἔχειν Kemke : σαλ[πικτῶ] | ν ἔχειν Gomperz : σαλ[ακ]ῳ̣ | [νω]ν ἔχειν Delattre : σαλ[ευόντων ἀ]νέχειν Angeli.[423]

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[422] Ε̣ἰ̣ δ̣’ ἕ[τ]ε̣ρ̣όν τις καλεῖ μ[ουσι]κὴν πα̣[ρὰ] τὸ πᾶν ποητι[κὸ]ν̣ γένος ἀποδιαλα̣βὼν [τ]ὰ̣ μ̣έ̣[λ]η ψιλὰ καὶ τοὺς ῥυθ̣μού̣ς̣, π̣[ο]εῖ̣ν̣ φημὶ̣ ε̣ὐ̣π̣[ρ]ε̣πῶς.

[423] At LXVIII.35–6 I believe Janko’s reading (refining those of Kemke and Gomperz) is correct. The drawings (*disegni*, designated *N*) which were made from these sections of *P.Herc.* 1578 and 1575 before those papyri were destroyed in the unrolling process, are reproduced on CD–ROM in Delattre’s edition (see Janko (2000) 57–8; Angeli (2004) 11–2

> It (sc. musical sound, ἡ μουσική) doesn't arouse the fighting spirit in a reprobate. It would do no good whatsoever for such a man to experience the sound of the trumpets. As a matter of fact, some foot–soldiers show themselves to be more cowardly than deer when the pipes give the signal, while others stand their ground, unfazed no matter the circumstances (and . . .). For certain people when they are locked in battle, a similar kind of vocal utterance also provides a stimulating sign arising out of judgment, and that too arouses resolve in the face of danger.

The trumpet, Diogenes seems to have claimed, can cause its listeners to charge into battle though they may be faced with danger. For the Stoic, this fact is evidence of music's ability to communicate emotional experiences and even instil virtues over time.

Philodemus' riposte, however, is twofold: for one thing, the trumpet does not instil any virtues which listeners do not already have: if someone is a coward, he will flee in the face of danger, trumpet or no. The trumpet does, Philodemus concedes, prompt already valiant soldiers to charge when they hear the relevant sequence of notes, but this is not because that sequence of notes has any inherently communicative properties. Instead, Philodemus argues that a trumpet signal and a battle–cry each serve as a σημεῖον ἐξ ὑπολήψεως. That is, vocal utterances and tonal signals are signs generated from ὑπόληψις – a difficult word which seems in Aristotle to serve as a catch–all for various kinds of cognitive judgment.[424] Not unlike δόξα, ὑπόληψις is a mental proposition which one holds to be the case about the world – in my steak example above (pp. 141), the ὑπολήψεις which arise in

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with n. 4; Delattre (2007) LXXXII–LXXXV, CXX, CXXIII). Janko's text fits equally well into the lacunae (cf. Delattre (1989) 63–4; Janko (1992) 124–5), and trumpets make more sense in the context of the argument than σαλ[ακ]ώ̣ | [νω]ν, braggarts (I also do not think there is cause to read traces of Omega here). I am intrigued but not convinced by Angeli's (2004) 14–8 reading, which fits the passage into Diogenes' broader views about the cultural value of music (cf. e.g. XXII.4–15). In order to accommodate σαλευόντων, Angeli has to read Delta at LXVIII.34 where there is almost certainly a Tau, and to make the grammar of the passage somewhat elliptical besides.

[424] See Arist. *De An*. 427b24–6 with Sorabji (1993) 39; Hamlyn (1993) 130; Schofield (1992) 273; Hadot (1998) 83; Charles (2004) 151–69; Gottlieb (2006) 223–4; Polansky (2007) 410–3; Chase (2010) 386–7; Shields (2016); and cf. Simplicius *in* Arist. *De An.* 427b16; Philoponus *in* Arist. *De An.* 427b24.

my mind upon perceiving the food are a) that it is delicious and b) that I want to eat it.[425] Epicurus also means by ὑπόληψις a judgment about the world which may be either true or false.[426] Philodemus seems to use the term in this way as well, and although he often talks about ὑπολήψεις which are false (ψευδεῖς), the fact that he needs to specify their falsehood suggests that he agrees with Epicurus that ὑπολήψεις may also be true.[427] Indeed the really salient feature of ὑπολήψεις throughout Epicurean thought on the topic seems to be that, as Philodemus himself says at *Mus*. 4.XCVII.35–41, they are λογικαί – rational. When he refers to a trumpet call or a battle cry as a σημεῖον ἐξ ὑπολήψεως, then, he is arguing that both function in battle as a kind of makeshift language: they are otherwise meaningless sounds which a given community (in this case, an army) has agreed will serve to indicate that someone (in this case, a commander) is having a thought (in this case, the thought 'now is the time to attack'). All of the soldiers' consequent responses – whether they flee in terror or steel themselves for the charge – are the result of this linguistic indication. Whether we use intervals and rhythms or syllables and shouts, what we are doing constitutes an act of conventional semantic communication. If trumpet tunes rouse martial valour, that is not (*contra* Diogenes) because music has inherently valorous properties, but because it happens to be the set of sounds that is being used on this occasion to stand in for thoughts. Therefore in this case a trumpet melody is by definition a kind of language, not a kind of music.[428]

This set of views leaves Philodemus with a rather counterintuitive set of ideas about what music is, but it enables him to claim that whatever is music *ipso facto* has no meaning or content beyond itself. When we use the word μουσική, the Epicurean argues, we are designating just those features of an artistic composition which use sound for the sake of physical, sensory pleasure: lovely noises make us feel good, and that is their use in art. All sounds may also, if we choose, have meanings assigned to them, but the minute we do that they become not music but language. It is language, not via its sounds but via the thoughts encoded into those sounds by convention, which stirs and persuades us. Insofar as any artist uses any sounds in that way – be they syllables or melodies – he is using language and therefore if he is making art it is not μουσική but ποιητική. This raises the question what defines that latter art – what makes the poetic use of language different, if at all, from other uses such as philosophical prose or everyday speech.

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[425] Cf. Arist. *Metaph*. 981a1–12 with Harari (2004) 19; see also Engmann (1976) 259; Fattal (2008) 52–4.

[426] See Epicurus' usages at *Ep. Men.* 124 with Heßler (2014) 180; D.L. 10.34.

[427] See Phld. *Piet*. XLVI.1305–21, LXIA.1741–9, LXXI.2032–39 Obbink; *Dis* 3.8.38 Diels.

[428] See further Klavan (2019b).

II. Poetic Style, Poetic Thought: Philodemus and the uses of language

a. Philodemus and the Euphonists on the ἴδιον: Surprising points of contact

Philodemus' distinction between μουσική and ποιητική has an unexpected consequence: it means that, when he turns his attention to poetry, he is faced with the same definitional task as the Euphonists. Like them (and in response to them) he must identify the feature of poetic language which makes it different from other instances of language. Yet more surprising is the fact that the feature which he identifies is in one respect the same as the one identified by the Euphonists: he concedes that a poet's task has to do with making lexical choices, i.e., with attending to the words themselves rather than to their meanings. He states quite clearly that 'picking out λέξεις' is 'the ἴδιον of the poet.'[429] So on one point, at least, he and the Euphonists are in agreement: the poet is essentially someone who works with the phenomenological aspects of language. What Philodemus will not accept is the suggestion that the accomplishment of this task provides any benefit for the listener or even plays a role in a poem's emotional effect. According to the Epicurean it is the διανόημα, the language's underlying thought or meaning, that moves (κινεῖ) or enchants (ψυχαγωγεῖ) its hearers.[430] The poet's task is to pick out λέξεις so that they will appropriately match and make clear (δήλωσιν) the νόημα.[431] This content or meaning, the *signifié* behind the language, is what accomplishes all the effects for which poetry is known – it is by the content that we are moved, inspired, instructed, etc. But, remarkably, the poet *qua* poet has no hand in composing the νόημα, which presumably is devised by the composer *qua* thinker or philosopher. The poet's job is to make sure that the means of expression, λέξεις, make the νόημα as clear as possible so that it can do its work. In other words, the best a poet can do is get out of the way – if his lexical compositions allow the νόημα to shine through, he has succeeded.

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[429] *P. Herc.* 1676 I.19–24. On ἐκλογή, word choice, as a central task of the poet in early Euphonism, see Phld. *Po.* 1.XVIII.1–6, CLXIX.15–18, CLXXII.18–22, 5.XXXIV.35–XXXV.20; Janko (2000) 387 n. 1, 389 n. 1. For further assertions from Philodemus about other stylistic features, such as concision and vividness, which are common to prose and poetry and thus not potery's ἴδιον, see Phld. *Po.* 5.VII.2–20, X.9–15. Cf. Mangoni (1988) 127–30; Armstrong (1995b) 256 n. 1.

Here Philodemus may be said to agree with Aristotle, for whom λέξις was a non–communicative, purely aesthetic feature of language whose proper usage was the clarification and adornment of meaning.[432] By contrast, as we have seen, the Euphonists believed that εὐφωνία itself can move, enchant, and even (in cases such as onomatopoeia) communicate meaning on its own.[433] The νοήματα of a poem are thus inessential to it and must be considered ‘outside of’ (ἐκτός) the core definition of the poetic art.[434] Philodemus does not disagree that νόημα should be excluded from the strict definition of poetry. He simply believes that, even if it is not essentially poetic, νόημα is the only thing of value a poem has to offer. The lexical choices which constitute real poetic composition are only useful insofar as they facilitate the communication of νόημα. Thus Philodemus essentially attacks Euphonism from within its own logic.[435] The Epicurean accepts Heracleodorus’ exclusion of νόημα from the poetic sphere on terms inspired by Peripatetic definitional science. But having accepted that premise, Philodemus insists, much like Aristotle, that sound ought to be subordinate to meaning.

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[430] See *P. Herc*. 1676 VI.16–24, Phld. *Po*. 2 *N* 1081b fr. 23.6–8; Gomoll (1936) 373–4.
[431] *P. Herc.* 1676 I.19–24.
[432] See Arist. *Po*. 1458a17–b5. Porter (1995a) 143 rightly refutes Rostagni's (1955) argument that Philodemus was unreservedly hostile to Aristotle. There are points on which Aristotle and Philodemus can never agree, particularly that of ethical ὁμοιώματα in music – cf. Greenberg (1990) 125–9. But this is an instance in which Aristotle's firm conceptual distinctions, particularly that between the rational and irrational, are of use to Philodemus' own project.
[433] See above, pp. 182–3 on Phld. *Po.* 1.XXXIII.1–5, CXCIII.6–11, CCVIII.12–17; *P. Herc.* 1676.IV.20–25, VII.13–16.

b. The case of metathesis: Form and content in Philodemus

Philodemus’ precise point of departure from the Euphonists on this point is best illustrated by his argument with them over the act of metathesis. This is a literary thought experiment which Euphonists perform in an attempt to prove that σύνθεσις of verbal sounds is the only thing that makes a poem excellent. Taking a verse which they considered to be phonetically lovely, Euphonists such as Heracleodorus and Pausimachus would rearrange its words so that, though the metre and the meaning remained unchanged, the order of its sounds would be jumbled and therefore (they claimed) the verse would no longer be good poetry.[436]

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[434] Phld. *Po.* 2 *N* 1081b fr. 23.6–8. For Heracleodorus even the λέξεις of a poem are technically ‘outside of’ the art, as the words themselves which a poet uses are available also to prose writers or normal people in everyday speech. Only the unique σύνθεσις arrived at by poets, and the εὐφωνία which arises from it, can properly be called unique to poetry.

[435] See Porter (1995a) 130–1.

[436] On this technique, its atomistic origins, and Philodemus’ objections, see Greenberg (1958); Porter (1989) 170; Armstrong (1995a) 221–3 and *passim*; Janko (1995) 90, (2000) 227 n. 2. Aristotle (*Po.* 1451a30–4) for his part argues that a tightly constructed plot cannot suffer metathesis of its constituent events without losing its excellence. For Aristotelian metathesis referring to the substitution (as opposed to the rearrangement) of words, see *Po.* 1458b17–31; Janko (2000) 227 n. 2

An analogue of this argument in English would run as follows: Shelley wrote the words, ‘Look on my Works, ye Mighty, and despair!’ But the words, ‘My Works, ye Mighty, look on and despair!’ may be understood to mean the same thing and fit into the same iambic pentameter. Nevertheless they do not sound as lovely that way, and thus the particular excellence which makes them good poetry – their beautiful word order – is lost. This is proof that beautiful–sounding word order is what poets are in the business of creating.

Philodemus’ objection to this proof of Euphonism by metathesis has long been noted: it is impossible, he says, to change the order of a poem’s words without also changing their meaning. Consequently all of the ways in which a verse is ‘ruined’ by having its words rearranged may be discounted as proofs of the Euphonist claim that the sound of lexical σύνθεσις is poetry’s indispensably essential virtue. True, altering σύνθεσις does alter a poem’s sound. And Philodemus will even concede that a poem’s excellence or failure depends on its σύνθεσις: this, he says, ‘is the most persuasive of all their [i.e. the Euphonists’] claims.’[437] But in Philodemus’ estimation this is because metathesis also inevitably does violence to a poem’s content. In respose to the example above from ‘Ozymandias,’ then, Philodemus could say that the syntax has become confused and ambiguous so that ‘look on’ might at first reading be construed as an intransitive compound verb meaning ‘gaze outwards’ rather than as a transitive verb with the phrase ‘my Works’ as its object. This is arguably somewhat less true given Greek’s flexible word order, but Philodemus maintains the point: responding to the Euphonists’ innumerable rearrangements of Homer, Philodemus writes, ‘the thought becomes better or worse through their rearrangements, whenever it is found to become clear or unclear, distinct or ambiguous, coherent or disjointed, elegant or debased, or to undergo a change similar to those already named.'[438]

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[437] *P. Herc*. 1676 VI.27–VII.7: πάντων μέ[ν] ἐστι[ν π]ιθα̣νώτατον τῶν λεγομένων. See further VII.25–VIII.5.

I have quoted Philodemus at some length on this point because, though his assertions are relatively well–known, there is wide disagreement about their exact meaning and theoretical implications. Broadly speaking, modern interpreters have situated themselves somewhere on a spectrum between two readings. According to one such reading, Philodemus has committed himself to a suspiciously modern premise, that form and content are inseparable or, in Rostagni's (1955) 409 words, '*che non dovrebbe neanche la forma essere separata dal contenuto.*' Against this interpretation Porter (preceded by Benvenga and Greenberg) mounts a forceful attack.[439] Porter places Philodemus squarely within what he sees as an Aristotelian tradition of appropriateness (τὸ πρέπον) that subordinates style to meaning.[440] Philodemus, as Porter reads him, effectively sets up a one–way street from content to form: the principle which dictates appropriate lexical choice is always that of matching the sound of the words chosen to the ideas communicated by them, never the other way around. The order of words can and should facilitate semantic comprehension – that is their only important benefit, and the only purpose for which they should be used. David Armstrong gives a useful picture of how this kind of stance might work for Philodemus by situating it within the atomist tradition of language. On Armstrong's reading, Philodemus essentially agrees with Democritus and the Stoics that language is made by arranging syllabic sounds together; even though those sounds are meaningless in themselves, the cultural process of assigning meaning to certain arrangements of them is how we encode thoughts into vocal noises and thus turn them into language.[441] This is a useful interpretation in that it shows how Philodemus can hold that σύνθεσις contributes to meaning while still maintaining that the sounds of a word themselves are irrational and have no effect, *qua* sound, on their listener's thoughts or dispositions. 'Style to Philodemus,' writes Armstrong, 'has no virtue of its own apart from the whole of which it is part.'

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[438] *P. Herc*. 1676 VIII.3–13: τὸ νό[ημα βέ]λ[τιον] ἢ χεῖρον γ[είνεσθ]αι διὰ [τ]ὰ̣ς με[τ]αθέσεις, [ὅ]ταν εὑρίσκηται τὸ μὲν [σ]αφές, τὸ δ᾿ ἀσαφ̣ές, ἢ τὸ μὲν εὐκρινέ̣ς, τὸ [δ᾿ ἀ̣]μ[φ]ίβολον, ἢ τὸ μ̣ὲ[ν συ]νέχον, τὸ δ᾿ ἀκατάλλη̣λ̣ο̣ν, ἢ τ̣ὸ μὲν ἀστεῖον, τὸ δὲ [φα]ῦλον, ἤ τι τῶν ἀναλ[ό]γων τοῖς εἰρημένοις. See also IX.20–5; Janko (2000) 217 n. 7, 227 n. 2.
[439] Benvenga (1951) 246; Greenberg (1961) 283; Porter (1995a) 123, 127–31.
[440] Porter (1995a) 125–6.

Porter's reading, as informed by Armstrong's philosophical exposition, has much to recommend it. To begin with it rescues Philodemus from complete incoherence, of which he would be guilty if he did in fact advocate an inseparable union between form and content. Elsewhere Philodemus works with a model in which those two things are irreducibly distinct and even categorically different from one another: the phenomenological elements of language are, in his view, mere clothing or decorations for the semantic meaning, which are the real substance of any linguistic utterance and the essential feature according to which its quality is to be evaluated.[442] If instead we take Philodemus to mean that form follows from content, we can understand much more easily the ways in which he talks about the value of σύνθεσις. When Philodemus concedes to the Euphonists the importance of σύνθεσις, he does not by any means do so because he thinks good σύνθεσις is a virtue in itself. That is the heart of the Euphonist position: they think that the appreciation of poetry just is the appreciation of word order, and to agree with them on that point would be tantamount to admitting defeat. Instead what Philodemus does is to affirm the importance of σύνθεσις because it is a means, and perhaps the central means, of communicating νόημα. As is quite clear from *P. Herc.* 1676 VIII.3–13 (above, pp. 207–8), Philodemus thinks σύνθεσις is of instrumental value for making νόημα (which is valuable in itself) distinct, unambiguous, elegant, and so forth.

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[441] Armstrong (1995a) 216–223.

[442] See Phld. *Mus*. 4.LXXXIV.30–37, XCII.1–5, CXII.33–42, CXXXIII.19–26, CXLVII.6–11. Cf. D.H. *Comp*. 12; Kramarz (2016) 285–6.

I therefore largely accept the combined reading derived from Porter and Armstrong, but I want to emphasise an important point which arises from it. According to Philodemus on this reading, the σύνθεσις of letters, syllables, and clauses next to one another is the mechanism whereby we reveal, effectively or ineffectively, the content which we have on our minds. The sounds which σύνθεσις arranges are meaningless in themselves, but they are also the only way we have of making meaning – that is, of forming signs which allow others to access our thoughts. This amounts to a poetics in which authors begin from some cognitive idea or vision (some νοῦς or νόημα) which is conceivably, if not actually, abstracted from any particular expression in words. But the poet must then clothe that content – a story, say, or a moral lesson – in letters, syllables, words, and clauses, every feature of which (including their order next to one another) is dictated by their goal of communicating that content clearly to the mind of an audience member. The resulting diction and syntax is inalterable not because it is itself valuable, but because it is the only way in which this exact thought can be represented to this particular linguistic community. If Armstrong is right that Philodemus would have mapped the principles of his atomism onto his theory of language, then σύνθεσις would in fact have been for him entirely and exhaustively constructive of a sentence's or a poem's meaning: in such a system, semantic content is encoded into letters and syllables purely by virtue of their particular arrangement next to one another, just as the behaviour of atoms is purely a function of their position in relation to and combination with each other.[443] That is, for Philodemus, σύνθεσις just amounts to semantic meaning, or at least it is the feature of articulated verbal sound into which we encode our thoughts.

An important and direct consequence of this is that, for Philodemus, all linguistic sounds must exert two distinct effects upon us when we hear them. One thing they do is simply stimulate our sensory organs, thereby communicating to our rational minds nothing more than the mere fact of their occurrence and the attendant pleasure or pain. Just as I might taste a steak and derive from that experience in itself nothing more than the fact, quality, and pleasure of its taste, so I might hear a series of words or notes or other sounds and simply become conscious of a certain qualitative experience that I either like or dislike. But unlike the taste of the steak, those very same sounds might act upon me in a different capacity altogether: they might be the arrangement in which I discern certain predetermined patterns which my community has agreed will stand in for a particular set of internal experiences on the part of another human being. This is an effect of sound upon me, but not *qua* sound so much as *qua* language. In fact we have already seen Aristotle express something like this idea at *De Sensu* 437a3–17: 'λόγος, which is the cause of understanding, is audible – not in itself but accidentally.'[444] Philodemus is of something very like the same opinion: sounds may stimulate emotion, give us information, or change our actions, but they do so not in their capacity as language, not as sounds (in which latter capacity they are mere sense–data).

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[443] This tendency to play out the implications of physical atomism in a linguistic theory of semantic communication is widespread: see above, pp. 104–6.

There thus emerges in *On Poems* just as in *On Music* a single distinction which discriminates all kinds of sounds from one another: either they are or they are not semantically encoded. This helps to confirm and flesh out the anti–semiotics of music which we discerned in the latter text. Given a particular song – that is, a particular set of sounds – Philodemus wants to call μουσική all the features of those sounds which merely strike our ears as pleasant sensory experience. This will include the modulating pitch of the melody, the temporal alterations of the rhythms, and even the experience of merely hearing and enjoying the lexical shapes and arrangements of the words. Once we begin to perform the cognitive task of inferring from those arrangements a set of propositions or ideas, then we have passed over into semantic territory and are treating sounds as λόγοι. This distinction is so rigid that even a series of non–lexical notes in a particular set of intervals may be used as λόγοι if those who deploy them agree that they are indicative of certain thoughts. This was the fate of the trumpet, which when used to give commands on the battlefield is not a musical instrument for Philodemus but a communicator of its own kind of language – a σημεῖον ἐξ ὑπολήψεως.

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[444] See above, pp. 64–5.

It is easy to see how different this is from the entire tradition of theorists – Plato, Aristotle, and Aristoxenus being foremost among them – who hear in a musical poem some tripartite blend of language, rhythm, and melody. All three of those things are auditory entities which strike a listener's hearing – often, as Pseudo–Plutarch's Soterichus emphasises, simultaneously within one and the same sound. All three of them are at once sensory experiences and capable of presenting or encapsulating some kind of content that is different from their sensory qualities. The distinctions between them are therefore founded on something other than their ability to influence listeners' emotions and thoughts, which they all share. Rather, what makes language different from rhythm, for example, is that the former is made up of letters whereas the latter is made up of units of time, while melody is made up of relationships between pitches. Ultimately then these three things are aspects of sound distinguished analytically from one another by a listener who perceives them all in a single moment of sung poetry. In Philodemus' view, none of those distinctions between kinds of sound – upon which the tripartite model is based – is philosophically significant or cuts to the bone of what distinguishes sounds from one another. There is only one such distinction, and that is the distinction between semantically encoded and not semantically encoded.

III. Poetry as Language and Music as Sound: Toggling between *On Music* and *On Poems*

Returning to *On Music* after examining *On Poems*, we can see that Philodemus carries over his definitional distinction between meaningless music and meaningful language from one text to another, but from a slightly different angle in each. It is significant that, in the former treatise, Philodemus accuses Diogenes of making an error ‘when defining’ (Phld. *Mus*. 4.CXX.2–3: διορίσας) music. It was this error that led Diogenes to ascribe motive powers to musical sound, attributing to melodies and rhythms the ability to affect choice and action when really that ability only rests with words. We can now understand this assertion with Euphonist discourse about the ἴδιον in the background. In *On Music*, Philodemus keeps that discourse in mind but shifts his stance slightly so as to emphasise the difference between poetry *qua* language and music *qua* sound, rather than that between poetry *qua* lexical selection and prose *qua* semantic communication which is the focus of *On Poems*. Several passages in *On Music* about the ἴδιον will flesh out this shift.[445] I will begin with one from late in the treatise, as it is relatively clear and well–preserved (Phld. *Mus*. 4.CXXXI.28–35):

ἃ δὲ δὴ γρά–
φε̣ι̣ π̣[ρὸς ψυχ]αγωγίαν ἰδί–
αι περιειλῆφθαι παρ̣ὰ τοῖς
μελοπ̣οιοῖς
(. . .)
ἅπα̣ντα σχεδὸν δι–
ανοημά[τ]ω̣ν εἶναι καὶ πο–
ητικ[ῆς ἰδι]ώματα.

> Those things which, as he writes, are included within the unique means of enchantment among composers of melody (. . .) are almost all in the purview of thought and are unique features of the poetic art.

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[445] I pass over here a number of passages in which ἴδιος and related words are used more casually, not in the definition of various arts but rather to designate a ‘unique’ or ‘proper’ aspect of some other thing such as an instrument or type of dance. See e.g. Phld. *Mus*. 4.LXVI.30–3, LXXV.16–8, CXXXV.18–23, XCVI.2–12, CXLII.28–35, CXLVI.7–14. Cf. LXXXIV.37–42, CXXIV.28–36, CXXXI.4–8.

Philodemus is responding to a claim recorded at Phld. *Mus*. 4.XLVI.45–XLCII.11, where the language of ἴδιον and ἰδιότης is again confirmed. The subject of controversy is the application of moralising adjectives such as γενναῖος and δειλός to things other than humans. I have already pointed out that Diogenes wanted to apply one set of such adjectives, those denoting ethical virtues, to musical sound. It seems that he also adduced in support of this claim the fact that some thinkers had applied those terms to inanimate objects such as food and drink.[446] This for Philodemus is an analogical mistake: such terms are only applied to music and comestibles by analogy; *per se* they describe the διανοήματα which are the concern, not of melodic composers, but of poets. In other words, νόημα, which alone moves its audience to ψυχαγωγία and to ethical action, is the ἴδιον of poetry, not music.[447] As we know from *On Poems*, the poet *qua* poet is, strictly speaking, not the inventor of νόημα but rather the selector of λέξεις which will appropriately convey the preselected νόημα. But this nicety is elided here as almost always in *On Music* because the fundamental dichotomy is between music *qua* sound and poetry *qua* language.

At one point Philodemus does gesture towards his fully enunciated stance when he asks derisively how it could be possible that ‘that which is uniquely designated as music’ (τὴν ἰδίως καλουμένην μο[υ]σικὴν) can be shown to lead ‘towards erotic virtue (πρὸς τὴν ἐρωτ[ι]κὴν ἀρετὴν) more than the poetic art or, better yet, wisdom (μᾶλλον ἢ τὴν ποητικὴν ἤ, βέλτιον ἔτ̣ι̣, τὴν σοφίαν).’[448] Here two things are confirmed. First, σοφία, communicated semantically by language and distinct from the lexical art of poetry, is what does all the work of edifying a listener for Philodemus. But at the same time, the Epicurean sometimes uses poetry and the poetic arts (τὴν ποητικὴν) as a stand–in for semantic communication when the comparison is between poetry and music, since it is in poetry that language creeps into musical performance and muddies the waters, making it seem as if music is having an effect which can only really be produced by thought semantically conveyed. This helps support our interpretation of a more lacunose passage where Philodemus disambiguates the role of the rational mind and the irrational ear in judging artistic composition. ‘The things unique ([ἴ]δ̣[ι]α̣) to the ear are judged more by a natural and irrational faculty (αὐτοφυοῦς καὶ [ἀλ]όγου), those of the mind more by a scientific ([ἐπ]ιστημονικῆς̣) one,’ writes Philodemus. ‘And the unique work of the poet (τὸ τ̣ο̣[ῦ π]οι̣η̣[τοῦ ἴδι]ον) is grasped according to reason (κ[α]τὰ λόγον)’.[449] Here the argument is approached from the point of view of the critic rather than the artist, but the idea is the same: the irrational and sensory faculties of our souls naturally feel the pleasure of musical sound, whereas it is only with our minds that we can discern the appropriate link between lexical choice and the all–important semantic content or thought that it conveys. The former experience belongs to music, the latter to poetry, and never the twain shall meet.

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[446] The main figure cited seems to have been Chamaeleon. The controversy generated by this citation need not concern us here, but its details can be gleaned from Delattre (2007) 366 n. 8 with Phld *Po*. 4.XCVIII.37–44. Cf. Phld. *Mus*. 4.LXV.7–13, where Philodemus insists that certain things which are ἴδιον to σωφροσύνη are not defining features of music.
[447] Cf. Phld. *Mus*. 4.CXVII.11–23.
[448] Phld. *Mus*. 4.CXXIX.15–22. Cf. CXL.4–9.

Not enough is known about Philodemus’ career to establish a chronology of composition for the aesthetic texts. It is not certain whether Philodemus formulated his definition of poetry in response to the Euphonists and then brought the relevant features of it to bear against Diogenes, or whether he made claims about the nature of poetry in *On Music* which he then refined when pushed to do so for *On Poems*. What we can say is that in both texts Philodemus demonstrates a preoccupation with the ἴδιον of various arts which is shared by the Euphonists but not by Diogenes. Philodemus routinely quotes the Euphonists as arguing in terms of the ἴδιον, and he responds in kind throughout his own rebuttal. He also uses the logic of the ἴδιον to respond to Diogenes, but it does not seem from *On Music* that this is because Diogenes himself was interested in finding the ἴδιον of music. Rather, it looks as if Philodemus is using the ἴδιον as a tool to convict Diogenes of definitional imprecision, arguing that the Stoic conflated the effects of music and poetry because he did not take care to identify the essential nature of each art. Whatever the chronology, Philodemus' attempt to dismantle the Euphonists' poetics of pure sound apparently pushed him to formulate a definition of poetry that would pass muster within the rigorous Aristotelian framework of essential and unique qualification employed by critics like Heracleodorus. This same mode of thought allowed him to specify the nature of poetry *qua* poetry, language *qua* language, music *qua* music, and sound *qua* sound. When facing down Diogenes, Philodemus deployed that same discourse of the ἴδιον in his attempts take apart Diogenes' arguments. Thus Aristotle's science of definition, which enabled the Euphonists to exclude semantic meaning from the critique of poetry and limit aesthetics to the realm of pure sound, also became a weapon in Philodemus' hands to argue against the possibility that musical sound could ever affect the rational mind and its ethical attitudes.

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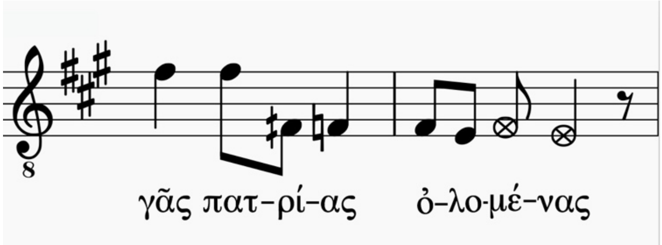
[449] Phld. *Mus*. 4.CXV.35–44: ὑπ[ὸ] γὰρ αὐτοφυοῦς καὶ [ἀλ]όγου κρ⟦ε⟧ίνεται μᾶλλον [τά γ]ε τῆ̣ς ἀκ̣ο̣ῆς̣ [ἴ]δ̣[ι]α̣, [ὑπὸ δ]ὲ [ἐπ]ιστημονικῆς̣ κ[αὶ τ]ὰ̣ [τ]ο̣ῦ̣ [γε] νοῦ μᾶλλον (. . .). κ[α]τὰ λόγον δὲ̣ καὶ τὸ τ̣ο̣[ῦ π]οι̣η̣[τοῦ ἴδι]ον, (. . .) ε̣[ἴ]ληπται.

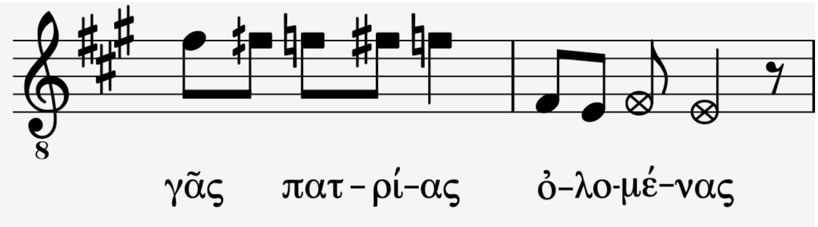
IV. Anti–Semiotics in Action: Two musical examples

Someone listening to music informed by Philodemus' philosophy would therefore have to give an account of his experience not unlike the 'decorative' one which I rejected for Plato in Chapter 1. To see more precisely what this means, we can revisit this strain from a concert performance of *Iphigenia in Aulis*:



Ex. 2: E. *IA* 792 (= Pap. Leiden Inv. P. 510; *DAGM* 4)

We may recall that the tune is remarkable for its sharp break between melody and accent: the pitch drops by more than an octave on the syllable –ρί–, whose acute accent leads us to expect a rise in pitch. According to Philodemus the only effect this rather striking melodic moment can have on its listener is to cause pleasure or pain: a Philodemean interpreter can say of such a sound, 'I like it' or 'I do not like it,' but not 'it terrifies me' or 'I feel inspired by it.' All such nuanced reactions would involve an operation of the rational faculty, and consequently would have to arise out of the listener's interpretation of the words γᾶς πατρίας ὀλομένας, 'ruined land of my fathers.' Whatever a listener's response to the concepts denoted by those words – be they dejection, anger, anxiety, etc. – would remain the same whether the melody was as written or instead followed the pitch–accents with a more traditional conformity, as in the imagined melody below (using square note–heads to indicate re–written notes):



Ex. 2a: E. *IA* 792 (= Pap. Leiden Inv. P. 510; *DAGM* 4), re–written to follow pitch–accent

These two examples are, by Philodemus' standards, identical except in their being more or less pleasurable to listen to.

By contrast, for someone like Diogenes of Babylon, a host of analytical possibilities is available to articulate the difference between these two melodies. We have seen already how the phonemes of the words, their semantic meaning, and the melody to which they are sung all interact with one another in the Diogenean system, presenting a complex picture in which ideas articulated by language are complicated, subverted, or given nuance by an emotional experience made manifest in the melody. Thus the shift from the pitch as written to the more 'orthodox' tune I have imagined as Ex. 2a could constitute for Diogenes a re–interpretation of the same words, softened from their original plummeting dejection to a more confident, soaring expression of pride or satisfaction. None of these interpretative avenues is open to Philodemus, for whom the song's tune must be mere sauce added onto the words to make our main business of interpreting them either more or less physically enjoyable. A Philodemean interpreter can notice the disconnect between pitch–accent and melody so far as that goes, but it must be at best a nuisance and at worst a stumbling–block to understanding words which we are used to hearing pronounced with a different tonal contour. That tonal contour is ultimately dispensable and uninteresting, because it is not one of the acoustic features which, according to the usual conventions of Greek as understood on the Epicurean model, stands in for any kind of propositional noetic content.

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In dialogue with the Euphonists' views as he understood them, and informed by principles derived from Epicurean orthodoxy, Philodemus arrived at an account (or rather a negation) of musical semiotics that entirely contradicted the prevailing system of thought about melody which preceded him. Among our extant sources that system is most fulsomely articulated in Plato's dialogues, but some of its most important principles were developed as early as the beginning of the sixth century BC, as I indicated in Chapter One. We know from the Hibeh papyrus that the ethical interpretation of music had its detractors, but even such dissenting voices make clear from the broad ambit of their polemics that they are up against an ideological system with widespread currency among intellectuals of various stripes. The Epicurean was pushing back against a Hellenic philosophical orthodoxy – as enthusiastically defended by Diogenes – elements of which found favor with Cicero and probably with the various Roman sophisticates among whom Philodemus moved.[450] His task was to develop a plausible alternative system which could account for the many observable roles played by music in Greek and Roman cultural life – its accompaniment of manual labour, its use as a military stimulant, its enduring popular appeal – while still denying to sense perception any inherent structural logic or propositional content.

In his attempt to develop such a system, Philodemus took advantage of a recent radical strain of poetics which had reduced all acts of musical and poetic composition to the arrangement of noises next to one another. The poetics of pure sound which the Euphonists developed out of Neoptolemean and Aristoxenean principles gave Philodemus some purchase in the unlikely arena of post–Peripatetic aesthetics: he could play along with Euphonism in defining ποίημα as nothing other than just the placement of tones and syllables of various kinds in an order determined solely by the sensory pleasure they caused. But he then added his crucial caveat, based on the Epicurean doctrine that sense perception is irrational: if poetry and music are to be defined as nothing but sound, they must necessarily be said to have no λόγος, that is, none of the intelligible structure which for Plato affords them a kind of isomorphism with the created universe and a consequently powerful psychological impact.[451] For an Epicurean all such rational order must be imposed, as it were, ‘from the top down' – the mere facts of our sensory experiences are only the raw data of our reasoning which must be systematised by the mind. This kind of rational arrangement – the placement of syllables and words next to one another in order so as to indicate thoughts – is for Philodemus not natural to sound but merely assigned to it by cultural convention. This makes it fundamentally distinct from the physically pleasurable or displeasing arrangement to which poets and musicians devote their attention according to Euphonism, and which for Philodemus is a feature of sounds *qua* sounds and consequently devoid of inherent meaning. This is what he thinks enables him to wield against Diogenes a definition of music which is founded upon principles of semantic meaning: musicians are those who arrange sound beautifully, that is, they are those who make things which are ἀσήμαντα. Poets, by contrast, may offer us material which prompts reflection or even motivates action, but that is because the sounds they arrange pleasurably are lexical and so also have meanings assigned to them: they are, as Philodemus asserts, λόγοι.

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[450] See especially the neo–Pythagoreanism articulated in Cic. *Fam*. 4.13; *Rep*. 5.18, with Delattre (2004) 256.

[451] On sense perception as ἄλογος see further Phld. *Po.* 1.LXXXIII.22–7, CLI.4–15, CLXXV.16–24; *Mus.* 4.LXXX.32–3, XCVI.36–7. Cf. D.L. 10.31–2; D.H. *Comp.* 23.114–23; Ardizzoni (1953) 85; Delattre (2007) 157 n. 1.

Conclusions

Peripheral Issues, Modern Parallels, and Questions for Further Study

I. Language, Heaven, and the Soul: The sources of musical meaning

a. The soul in motion and emotion

The aim of this dissertation has been to track some key developments in Greek thought about musical expression and meaning between Plato and Philodemus. In some senses, the story that has emerged is one of progressive dissolution and fragmentation. In Plato's 'unified field theory' of musical composition, the melodic, rhythmic, and verbal components of an ideal sung poem emerge together and organically as variegated expressions of one core meaning or idea – one central λόγος. But Aristotle's intellectual rigor disrupted this unity with a kind of theoretical pluralism: in the specificity of his attention to detail, the Stagirite observed some key differences between the way language functions and the way melodies are constructed – in particular, the naturally expressive structures of the latter came to stand in stark contrast to the conventionally assigned symbols of the former. The latent ramifications of this split between words and tunes play themselves out in Aristoxenus, for whom melodies become sound structures unto themselves, capable of being appreciated on their own purely aural terms even if they may then be employed as part of an artistic depiction.

Though Philodemus haggles with the Euphonists over which aspects of language are artistically valuable and which cognitively meaningful, all parties to that debate essentially accept the Peripatetic dividing line between sensory experience *tout court* on the one hand,

and sensory experience imbued with significance on the other. From Plato's one λόγος, the central meaning which rhythms and tunes must follow, we arrive eventually at Philodemus' various λόγοι, the ideas that artists like Pindar and Simonides encode into certain sounds which therefore qualify as poetic language, whereas other sonic features of their compositions which have not been so encoded are to be dismissed as mere musical sound. In many ways, Diogenes of Babylon represents an outlier in this trajectory, the proponent of a Stoic tradition which maintains that a unitary λόγος governs the whole cosmos. By consequence he, like Plato and Pythagoras, can comfortably assert that the sounds of melody and language alike emerge naturally out of the meanings they are intrinsically suited to express. For others under Epicurean and Peripatetic influence, that is no longer a workable model: Philodemus must insist that all sounds convey meaning, if they do at all, only by convenience as the conventional signs from which we may infer our interlocutor's thoughts and feelings.

At various points in this story, strictly musicological theorising has not been the only or indeed even the central motive behind these authors' statements about musical meaning. In order to account for pronouncements about melody, we have frequently had to look to foundational beliefs about psychology, linguistics, and cosmology. Since melody is often thought to express emotional experience if it expresses anything at all, the psychological nature of emotional experience itself becomes an important factor in determining the relationship between the sounds we make and the way we feel.[452] For Plato, emotion was essentially a movement in the soul as tugged or pushed in various directions towards various objects by pleasure and pain. The several parts of the soul were therefore subject to spatial manipulation and kinetic realignment by the forces of reason: the charioteer steers the horses of the *Phaedrus*; the golden thread of rationality guides the marionette of the *Laws*. The

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[452] See Kramarz (2017) esp. 8–12.

Timaeus makes music into a primary means of assisting or hindering this process by analogising melodic motions to psychological ones: if tunes move the way souls do, then our souls may be made to move rightly or wrongly by the influence of well– or poorly–constructed songs.[453] When this influence is prolonged and repeated, it helps to instill the emotional habits which form the building blocks of ethical character. Thus movement for Plato becomes the essential link between melody and emotion which allows the two to mirror one another: tunes and tonal contours can resemble and so express the emotional experiences of the soul because souls and melodies move in the same kinds of ways.

This emphasis on motion remains central for Aristotle, who maintains that the movements of melody are what make it analogous to actions and character.[454] This means that melody and the soul are still related to one another through κίνησις, here envisaged not as physical movement but as any kind of dynamic change. A melody is fundamentally a sequence which shifts from one note to another – it thus exhibits one kind of change over time, as do souls undergoing παθήματα and being motivated to pursue ethical actions. So though the link between tune and soul is more abstract it remains one of natural resemblance and motive influence: melodies quite literally 'move' us to experience emotions which we would otherwise experience in response to events or ideas. Diogenes, too, imagines that melodies exhibit behavior identical to that of the soul when impelled towards ethical action by an emotional experience.

Epicureanism, by contrast, gave Philodemus a very different picture of what happens when souls come into contact with melodies. The Epicurean soul, being made entirely of atoms, does constantly undergo physical motion. But there is a fundamental distinction at play which means that the motion of melodies must be separate from that of souls in emotional action. The atoms which impinge upon us from the outside world cause one kind of motion, αἴσθησις, whereby we have sensory perceptions and experience pleasure or pain. But the minute we act in response to those experiences we have engaged in another, self–generated kind of motion which constitutes rational response and free choice.[455] Epicurus held both that the soul is the necessary condition for and so the principal cause of sense perception, but also that it is the body, not the soul, which can be properly said to feel and to undergo αἴσθησις.[456] In our Epicurean sources, including Philodemus' *On Death*, physical sensory impulses remain irrevocably distinct from the reasoning and decision–making with which we may respond to them: the irrational experiences of the σῶμα are kept rigidly separate from the the rational activity originating in the ψυχή.

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[453] See above, pp. 43–4.
[454] See especially Arist. *Pol.* 1340a40–b10, and cf. [Arist.] *Pr.* 19.27, 38 (= 919b26–37, 920b29–21a6).

This distinction in turn underlies the disjunct, upon which Philodemus repeatedly insists, between sound as pure sensory input and sound as bearer of meaning. The break occurs in the first moment when humans develop language use according to Epicurus' theory: our φαντάσματα and πάθη are sense perceptions and feelings prompted by brute encounter with the outside world. But when those impressions move us to emit sound, the noises we make become not only mere noises but clues to inferring that the person making the noise is having an experience of some kind.[457] And so sound arises from psychological motion not as an image emerges from its model, but as a cause follows from its effect: we use noise to infer thought, but we do not look to the character of that noise to tell us about the character of the thought. From the outset, this destroys the possibility that melodic sound might naturally manifest internal experiences. Those experiences are sometimes generative of sound, and those instinctive sounds can be the first tool we use to create the code which will ultimately become developed human language. But melody contains no such code except in special cases such as those of the trumpet. And so musical sound, like any other sound, becomes just another bunch of atoms stimulating pleasure and pain when it comes into contact with our souls. Unless it is assigned some other meaning, it can never of itself generate or communicate the thoughts and actions which language communicates via signs.

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[455] On the unpredictable atomic 'swerve' which enables this second kind of motion see especially Fowler (1983) and (2002) *in* Lucretius *DRN* 2.251–93. For alternative readings see Bailey (1928) 435–36, (1947) 840–42 (defended and updated by Purinton (1999)); Furley (1967) 163–232; Sedley (1983); Englert (1987) 119–51; Bobzien (2000).

[456] According to Lucretius, and possibly Epicurus, it is only one fourth of the soul, the fourth made of small unnamed particles known as the *quarta natura*, which directly receives the impressions constituting sense perception that occur in the body: see Lucr. 3.231–82; cf. Aëtius 4.3.11; Plu. *Adv. Col.* 1118e; Epicur. *Ep. ad. Her*. 63.5–8; and compare e.g. Kerferd (1971) 80–96; Von Staden (2000) 81–2 with Long and Sedley (1987) 1.65–6; Conche (1987) 161–2; Annas (1992) 137–49; Drozdek (2010) 43–4.

[457] Epicurus does not make clear whether he thinks that our very first sounds are released by an act of the will, although I suspect that they are involuntary (see above, pp. 196–8). But once sound becomes articulated and formed into what we now know as human language, it is certainly arranged purposefully and thus removed from the sphere of natural, irrational sense–data.

b. Language: Signs and symbols, nature and convention

The issue of signs also speaks to a second question central to the semiotics of music, which is how language can be understood to function in relation to human cognition. Words are the most obvious way in which we use sound to convey our internal cogitations, and so the relationship between those sounds and their referents is a natural foil for the relationship between melodic sound and whatever it is felt to express. Plato essentially has one model for both relationships, which is a naturalist model: we embody things in sound via resemblance, whether the resemblance of syllables to essences or the resemblance of tunes to spoken intonations and so to emotional movements. I have stressed throughout these pages that Aristotle's bifurcation of this model has latent but important implications for the theorisation of musical expression. When melody remains naturally similar to psychological activity, but words become conventional tokens of inward experiences to which they bear no similarity, music and language begin to serve separate artistic functions and so to be understood and appreciated on different criteria and in different terms. To distinguish melody from text in this way is to lay the groundwork for contemplating melody as an entity unto itself with expressive capacities (or other artistic value) entirely distinct from those of language. Aristotle begins this critical shift by suggesting that melodies may be enjoyed for their powerful communicative properties, regardless of whether we can condone the actions they resemble or the thoughts expressed in the words they accompany. Aristoxenus completes it when he finds a way of describing and evaluating the beauty of melody purely on its own terms, irrespective of any depictive act in which such melody may or may not be employed. When music as an aesthetic experience becomes separate both from language and mathematics, it no longer needs to express anything in order to function well as music. This development is the theoretical complement to the practical move away from pitch–accent correspondence in melodic composition. It is impossible to say whether composers felt more free to deviate from pitch–accent because theorists were coming to understand melody's value without reference to language, or whether that understanding was itself a response to trends of increasing artistic license in performance, but both were probably the case to some degree.

This separation between melody and language is also the development upon which the Euphonists were building when they decoupled the sounds of words from their meaning and called the former 'poetic' in contradistinction to the latter. In an intellectual tradition that has viewed melody and poetic language as two elements of one artistic project – one ποιητική or μουσική – sound cannot be separated from sense in the study of music only. The observation that melody functions as appealing sound on purely aesthetic terms without reference to any expressive content naturally occasions the insight that words, being sounds, may do the same. Thus the Euphonists, who share an intellectual pedigree with Aristoxenus and freely share critical terminology with music theory, endorse a poetics which describes the sounds of language as enjoyable in purely aural terms just as music is. For Aristoxenus and the Euphonists, musical melody and poetic language are both arrangements of sounds which harmonise pleasingly together *qua* sounds, and whose artistic merit is rooted in that harmony regardless of any meaning or content which may perfectly well arise out of them in addition. Philodemus, who agrees that meaning is something extraneous to the nature of sound, must concede that a certain kind of pleasure arises out of sounds in themselves which is distinct from the meaning that some sounds convey incidentally – not because they are sounds but because they are semantically encoded language. It is telling that his major opponent in this besides the Euphonists is Diogenes, whose tradition endorses a naturalist view of linguistic sound and who can therefore maintain that sensory experience in itself prompts a chain reaction which eventually results in thought, decision, and action. Philodemus, who wants to draw a dividing line both between sensory experience and thought, and between sound and meaning, must therefore conclude that if music is pure sound, then music has no meaning. So from Plato's naturalist account of both words and melodies, we pass through Aristotle's distinction between melodic naturalism and linguistic conventionalism, on to Philodemus' conclusion that all meaning is conventionally assigned and so music, being sound and thus part of the natural world, has no value beyond physical pleasure.

C. Heaven and the cosmos: Is music universal?

The natural world itself is the third flashpoint about which disagreement leads to differing opinions of how and what music can express. Underlying Plato's theory of natural coherence between linguistic meaning and melodic expression is a Pythagorean belief, worked out in the *Timaeus*, that the whole fabric of the universe follows one coherent λόγος which can be boiled down to rational relationships between numbers. Tunes and words both embody, or can embody, this λόγος in sound. Tunes do so both by virtue of their consonances, which emerge from numerical ratios, and by virtue of the words whose tonal contours they follow. Those words themselves ultimately stem from rationally or irrationally calibrated movements within the soul in response to the things whose essence is encapsulated semantically in the words' syllables. The universal λόγος is thus the wellspring out of which tone and text ought ideally to flow, and the link which binds the two together as mutual expressers of one originating idea. At the end of the *Metaphysics*, Aristotle rejects this Pythagorean account for language because he cannot endorse the resemblance theory of Greek phonemes which it stipulates: some sounds, like the sounds we use for letters, are not embodiments of the λόγος but accidental tokens of our thoughts, so that their shape is dictated by the shape of our mouths, not by the mathematical structure of the universe.[458] Even ethically characterised melody in Aristotle is not an aural instantiation of some universal reality but a sonic resemblance to distinctly human things, namely to emotion and character. We find that resemblance in the natural world and use it to communicate with one another, but in doing so we do not necessarily use it for its essential purpose in any absolute sense. Musical composition for Aristotle thus becomes not an outworking of a cosmic purpose as it is for Plato, but a manipulation of natural resources for the uniquely human purposes of representation and expression.

Here, again, Diogenes' Stoicism lends itself to a Pythagorean–cum–Platonic position, whereas Philodemus' Epicureanism militates against the universalism inherent in such an approach. An all–encompassing λόγος is a central tenet of Stoic physics, and I have argued here that this is among the things which enable Diogenes to posit that music contains rational structures identical to those communicated by different means in the formation of language. The same basic principles inhere in each. Melodies are constructed using mathematical ratios; we experience those melodies as beautiful because we hear the rightness of those ratios and recognise it as the same rightness which governs ethical action and logical discourse.

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[458] See above, p. 60 on Arist. *Metaph*. 1093a22–6.

But any correspondence between cosmic structures and musical sound must remain purely accidental for Philodemus. The Gadarene is in fact ready to concede for the sake of argument ‘that the movement of the sun and moon and the interval between them are analogous to that of musical notes, as is the zodiac to the division of the monochord.’[459] But even if so, this in no way justifies arguing that there is some deeper affinity between the two, nor that music can be used to cultivate virtue – this is an argument which Philodemus attributes directly to ‘certain disciples of some Pythagoreans’ (παρά τινων Πυθαγ[ορ]είων διαδεδεγμένοι τινές).[460] Unlike those Pythagoreans, an Epicurean like Philodemus must envisage the universe as infinitely variable and potentially governed according to different rules than the ones we observe to hold good within the small sphere of our direct experience.[461] Thus even if the heavens move as melodies do in certain cases, this need not suggest any essential link between the logic of the universe and the principles of harmonics, since other planets in other galaxies may well move differently. If this is so, then melodies and the heavens may move in similar ways in our universe simply by accident – since there is no evidence against that claim we cannot rule it out as a possibility, nor should we insist on the basis of our limited evidence that music is essentially linked to the structure of the whole universe.[462] For Philodemus, breaking the universal connection between harmony and the heavens makes music and indeed all utterance into a feature of the natural world like any other, potentially valuable for humans but not essentially designed to be so. As animals may be used for food but do not exist to be eaten, so sound, in Philodemus' view, may be a token for thought but is not inherently designed as a vehicle for expression.

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[459] Phld. *Mus*. 4.CXLIV.9–24: τὸ τὴν ἡλίου καὶ σελήνης κίνησιν καὶ διάστασιν ἀναλογεῖν τῆι τῶν φθόγγων καὶ τὸν ζῳδιακὸν τῆι τοῦ κανόνος καταδιαιρέσει.

[460] Phld. *Mus*. 4.CXLIV.9–CXLV.30 (see esp. CXLIV.21–3: οὐδὲν ἔοικεν ὠ̣φέλ[ι]μον παρασκευάζειν εἰς {δα̣[.]} τὴν ἀρετῶ̣ν περιποίησιν καὶ τῶν ἠθῶν ἐπανόρθωσιν̣).

[461] This is the ‘principle of plenitude’ – see See Epicur. *Epist*. *Pyth*. 85.8–88.3. Cf. 88.4–11, 95.1–7, fr. 266 Us.; Luc. *DRN* 5.422–31, 526–533, 7.703–11; Bakker (2016) 8–23.

[462] This ‘theory of multiple explanations’ is much discussed and presents some interpretative complications. It hinges upon the law of non–contradiction, of which S.E. *Math.* 214 seems to present a different view than the *Letter to Pythocles* – see Striker (1974) 76, (1996) 45; Fowler (2002) 191–2 for an argument that there are simply two kinds of ἀντιμαρτύρησις; Hankinson (1999a) 221–3, (1999b) 505–7 for an attempted reconciliation between the two, and Sedley (1982) 263–72; Long and Sedley (1987) 1.90–7; Asmis (1984) 178–80, 193–96, 211, 321–336, (1999) 285–94; Allen (2001) 194–205, 239–41 for a rejection of Sextus’ account as incorrect. Lucretius, at least, seems to imply that any cosmic configuration which

II. Modern Parallels and Questions for Further Study

Thus three questions frame the ancient discussions of musical expression and meaning which have been the subject of this dissertation. The first is, 'what happens internally to a human being when he or she interacts with his or her surrounding environment?' The second is, 'what are the ways in which sounds – with their various syllables, tones, and rhythms – may relate to that inward experience and so serve as communicators of it?' And the third is, 'do any "objective" facts about the natural world make any of the possible relationships between sound and the human inner life necessary and universal?' The answers which have emerged in these pages have been various, and have taken their cues from the intricately co–related systems of philosophical and literary thought to which the various authors were heir. And yet both the answers and the questions themselves, when framed in this way, reveal striking consonances with debates about music which are the subject of ongoing modern research.

Particularly live today is the idea of music as a 'universal language,' or of a music which would be expressive and appreciable across all world cultures – sometimes quite aptly designated a 'Platonic Music.'[463] Numerous attempts have been made to discern in the variegated practices and disparate structures of world music some underlying common threads which might make the rudiments of music appeal to the entirety, or most, of the

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is not precluded by the basic rules of reason may be assumed to exist somewhere in the infinite universe.

[463] So Goldenberg, Mazursky, and Solomon (2001) 2433.

human race. These attempts are often fueled by the hopeful commonplace that music can 'bring people together,' as well as by more scientific studies which suggest that listeners can indeed discern moods and emotions in music from cultures that are not their own and with lyrics in languages they do not understand.[464] When the question then becomes what features of music are in fact universal, the mathematical ratios which seem to describe harmonically consonant wavelengths are often the first likely candidates mentioned, and Pythagoras' name is often invoked.[465] Thus the basic points of Plato's argument remain alive and well: good musical sound is based on numerical structures, those numerical structures also govern the physical world, and melodies resonate with us on a deep level because the movements of our souls (or our brains) in emotion are also arranged according to that same cosmic structure.

However, significant challenges to this view have been raised in the many years subsequent to Plato. There is, to begin with, extreme variability across cultures in the tunings used and enjoyed by each society or even each subgroup within a society. Even if basic intervals like the fourth, fifth, and octave remain fairly reliable the world over, the wavelength ratios which listeners actually hear as those consonances can change from country to country and even from generation to generation within one country.[466] To cite one of the most common examples: the shift away from 'just intonation' and towards 'equal temperament' or 'tempered tuning' entailed modifying the standard tuning of notes so that the ratio of frequencies was identical between each adjacent note. Human ears prove quite tolerant of this shift, so that in the West today the intervals which most listeners hear as consonant are no longer in fact generated by the neat whole–number ratios which Pythagoras was said to have identified.[467]

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[464] See especially Mehr *et al*. (2018).

[465] See Higgins (2012) 37–8.

[466] See Davies (1994) 236; Higgins (2012) 39–40.

[467] See Dowling and Harwood (1986) 94.

Unable to specify a feature of the natural world which might make music 'objective' and therefore expressive to all listeners regardless of cultural background, researchers have turned to features of human biology and cognition which might both account for and validate our intuition that certain musical practices can be understood by the whole or most of our species. Here again the modern discourse follows similar patterns to the ancient one: like Aristoxenus, we are not confident that a mathematical description really tells us anything about which tones work well together in music, since we can observe that some irrational ratios do generate intervals that manifestly sound consonant even to trained listeners. And so, also like Aristoxenus, we stipulate that the essence of music is not an external fact about the material world but an internal experience within a human mind. This approach has generated more promising results, and has been aided in modernity by neuroscientific study. Kathleen Higgins, in a useful summary, lists sixteen human behaviours which are shared among the vast majority of individuals and might underlie some basic musical practices.[468] Among these are the perception of melody as 'contour' or as 'having a certain shape,' and the impulse to organise groups of successive pitches into the nearest approximate rational organization.[469] The experience of music as rationally organised within space and time, and the neurological link between that experience and the brain functions which correspond to certain emotive states, has thus become a focus of researchers who wish to discover how and why music might stimulate, and be felt to express, certain emotional responses in nearly all listeners.[470]

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[468] Higgins (2012) 43–7.

[469] See further Harwood (1976) 257; Becker (1980); Epstein (1988); and Higgins (2012) 44 n. 41, 47 n. 67 for further bibliography.

[470] For scientific study of rudimentary brain function in response to musical stimulus, see Kandler *et al*. (2009); O'Kelly *et al*. (2013); Meltzer *et al*. (2015). For modern experiments in ἦθος theory matching emotional response to (somewhat questionable reconstructions of) the various modes, see Ramos *et al*. (2011); Temperly and Tan (2013). Brown (2019) 20–24 will survey popular treatments of this field, and a forthcoming thesis by Kathryn King (Magdalen College, Oxford) will collect heart–rate and skin–conductivity data for subjects in the moment of listening to a performance of choral evensong. Cf. Kramarz (2017) 12 n. 47.

It is not clear which, if any, of the authors studied here was aware that other cultures might enjoy music structured on different principles than the tetrachordal ones which undergirded all Greek music. Philodemus, given his resistance to cosmic accounts of music, might well have been open to the idea. Aristoxenus seems convinced that the fourth is part of the nature of music and will be heard as consonant by all musically inclined peoples. But his emphasis on perception rather than mathematics may leave room for diachronic or cross–cultural differences in tuning practices – although he does not seem pleased with the fact that the enharmonic tetrachord is no longer commonly heard as consonant. It is significant that the modes themselves were given ethnic names and thought to represent differing geographical and cultural traditions: for Plato, perhaps the Greek modes already seemed to comprise the complete array of possible tunings from around the world, so that what held true for all of them may be thought of as true for all times and places. A new ethnographic study of the modes is currently in progress, and a study of Greek attitudes towards musical relativism awaits its author.[471] Another important area of further study is the relationship between Greek musical practices and those of other long–lived musical traditions, such as those of the ancient Israelites, with which Greek artists and thinkers were often in contact.[472] Such work would help clarify what Greek authors have to add to the modern conversation on universal music. That is a conversation which is growing urgent: the potential of music to unite or divide within and across global communities is one which, given the role of music in fomenting ethnocentrism and the rise in nationalism across Europe and America, cries out pressingly for attention.[473]

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[471] Dr Alex Wilson, whose preliminary presentations on these subjects in Oxford have been illuminating, is making exciting progress on this front.
[472] For intimations of this contact from the Talmud, see e.g. Tractate Ḥagigah 15b
[473] Similarly Higgins (2012) 169–82.

I cite these parallels between the musicological questions raised by Greek theorists and those current in modern discourse to make a final point: modern researchers are puzzling, with more sophisticated investigative tools, over the same questions that vexed the authors treated in this dissertation. Why does music make us feel the ways it makes us feel? Is it because we discern in it something more than mere sound? If so, what is that something more, and does it resonate with some inborn human faculty or pattern of behaviour? Does it, moreover, correspond to a natural or even divine reality which the sounds of music embody and so bring into direct contact with our sensory organs? An exhaustive physical description of music, as a succession of vibrating airwaves, does not suffice to provide an exhaustive cognitive description of the experience which listeners undergo – an experience which Samuel Pepys famously described as being akin to the raptures of lovemaking.[474] Like lovemaking, listening to music is a purely physical act which seems to express outwardly, and to communicate between individuals, what is going on metaphysically within the mind or soul. It is an impossible task to specify in words how that expression works. But it is a task to which neurobiologists in the 21st century AD, no less than Plato in the 4th century BC, have devoted themselves. Their accounts are at once illuminating and inadequate, because their subject is at once profound and indescribable. Between the late Classical and early Hellenistic eras, several interrelated attempts were made to explain the expressive capacities of music. Those attempts were a response to the tremendous and ubiquitous influence which musicians around the Mediterranean could be observed to command within their several cultures. The nature of those responses, the historical development between them, their interpretative successes and failures, and the light they can shed on the scarce surviving record of Greek music itself, have together constituted the subject of this dissertation.

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[474] See Latham (2016) 94.

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